					ST DEPARTMENT DIVISION O					AMENI	FC DED REPOR	RM 3		
		AF	PPLICATION FO	OR PERM	IT TO DRILL					1. WELL NAME and NUMBER Morgan State 921-36H4BS				
2. TYPE O	F WORK	DRILL NEW WELL	REENTER	P&A WELL	DEEPEN	WELL ()			3. FIELD OR WILDCA	T NATURAL	BUTTES		
4. TYPE O	F WELL	G	as Well Co	nalhed Meth	nane Well: NO				5. UNIT or COMMUNITIZATION AGREEMENT NAME					1E
6. NAME (OF OPERATOR		KERR-MCGEE OIL				7. OPERATOR PHONE 720 929-6515							
8. ADDRE	SS OF OPERAT		P.O. Box 173779							9. OPERATOR E-MAII	L			
	AL LEASE NUM		F.O. BOX 173778		NERAL OWNERS	SHIP				12. SURFACE OWNER		anadarko	_	
	., INDIAN, OR S	ML 22265	(C1)	FED	ERAL IND	DIAN 🔵	STATE () FEE(0		DIAN (STATE		EE 💭
		OWNER (if box 12								14. SURFACE OWNER		`		
15. ADDR	15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')									16. SURFACE OWNE	R E-MAIL	(if box 12	! = 'fee')	
	N ALLOTTEE O := 'INDIAN')	R TRIBE NAME		MULTI	TEND TO COMM IPLE FORMATIOI (Submit C	NS	ng Applicatio		0	19. SLANT VERTICAL DIF	RECTIONA	AL 📵 H	HORIZON	TAL 💮
20. LOC	ATION OF WELL	-		FOOTAGE	s	QTR	R-QTR	SECT	TION	TOWNSHIP	RA	ANGE	ME	ERIDIAN
LOCATIO	N AT SURFACE		210	08 FSL 745	5 FEL	NE	ESE	36	6	9.0 S	2	I.0 E		S
Top of U	ppermost Proc	lucing Zone	207	'1 FNL 493	3 FEL	SE	ENE	36	6	9.0 S	2	1.0 E	S	
At Total	Depth		207	1 FNL 493	FNL 493 FEL		SENE 36		9.0 S 2 ⁻¹		21.0 E S		S	
21. COUNTY UINTAH 22. DISTANCE TO NEAREST							ASE LINE (Fe	et)		23. NUMBER OF ACR	ES IN DRI		IT	
25. DISTANCE TO NEAREST (Applied For Drilling or Co								POOL		26. PROPOSED DEPT		TVD: 105	37	
27. ELEVATION - GROUND LEVEL 28. BOND NUMBER 5036 22							542			29. SOURCE OF DRIL WATER RIGHTS APPR		MBER IF A	PPLICAB	LE
					Hole, Casing	, and Ce	ement Infor	mation						
String	Hole Size	Casing Size	Length	Weight	Grade & T		Max Mu			Cement Sacks Yield Weig				
Surf	12.25	8.625	0 - 2580	28.0	J-55 LT	&C	0.2	2		Type V Class G		180 270	1.15	15.8 15.8
Prod	7.875	4.5	0 - 10710	11.6	HCP-110	LT&C	13.0	0	Prer	mium Lite High Stre	ngth	320	3.38	12.0
										50/50 Poz		1560	1.31	14.3
					A	TTACHN	MENTS							
	VEF	RIFY THE FOLLO	WING ARE AT	FACHED I	N ACCORDAN	ICE WITH	H THE UTA	H OIL AN	ND GAS	CONSERVATION G	ENERA	L RULES		
w w	ELL PLAT OR M	AP PREPARED BY	LICENSED SURVE	YOR OR E	NGINEER		СОМР	LETE DRI	ILLING PL	_AN				
AF	FIDAVIT OF STA	ATUS OF SURFACE	OWNER AGREEM	MENT (IF FE	EE SURFACE)		FORM	5. IF OPE	RATOR IS	S OTHER THAN THE LI	EASE OW	NER		
I ✓ DII	RECTIONAL SU	RVEY PLAN (IF DIR	ECTIONALLY OF	HORIZON	TALLY DRILLED)	торос	SRAPHIC/	AL MAP					
NAME Da	anielle Piernot			TITLE R	egulatory Analyst	t		PHO	ONE 720	929-6156				
SIGNATU	RE			DATE 12	2/19/2011			EM	IAIL danie	lle.piernot@anadarko.	com			
	BER ASSIGNED 047522880			APPROV	/AL				bol	ocyill				
							Permit Manager							

Morgan State 921-36I Pad Drilling Program
1 of 9

Kerr-McGee Oil & Gas Onshore. L.P.

MORGAN STATE 921-36H4BS

 Surface:
 2108 FSL / 745 FEL
 NESE

 BHL:
 2071 FNL / 493 FEL
 SENE

Section 36 T9S R21E

Unitah County, Utah Mineral Lease: ML-22265

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2.a <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,331'	
Birds Nest	1,670'	Water
Mahogany	2,133'	Water
Wasatch	4,607'	Gas
Mesaverde	7,274'	Gas
Sego	9,433'	Gas
Castlegate	9,501'	Gas
MN5	9,937'	Gas
TVD =	10,537'	
TD =	10,710'	

2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Sego as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

API Well Number: 43047522880000

Morgan State 921-36I Pad Drilling Program 2 of 9

4. Proposed Casing & Cementing Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. <u>Abnormal Conditions</u>:

7.a Blackhawk (Part of Mesaverde Formation) Target Formation

Maximum anticipated bottom hole pressure calculated at 10537' TVD, approximately equals 6,954 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,684 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

7.b Wasach/Mesaverde Target Formation

Maximum anticipated bottom hole pressure calculated at 9433' TVD, approximately equals 6,037 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,949 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

Morgan State 921-361 Pad Drilling Program

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooic line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Morgan State 921-36I Pad Drilling Program
4 of 9

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

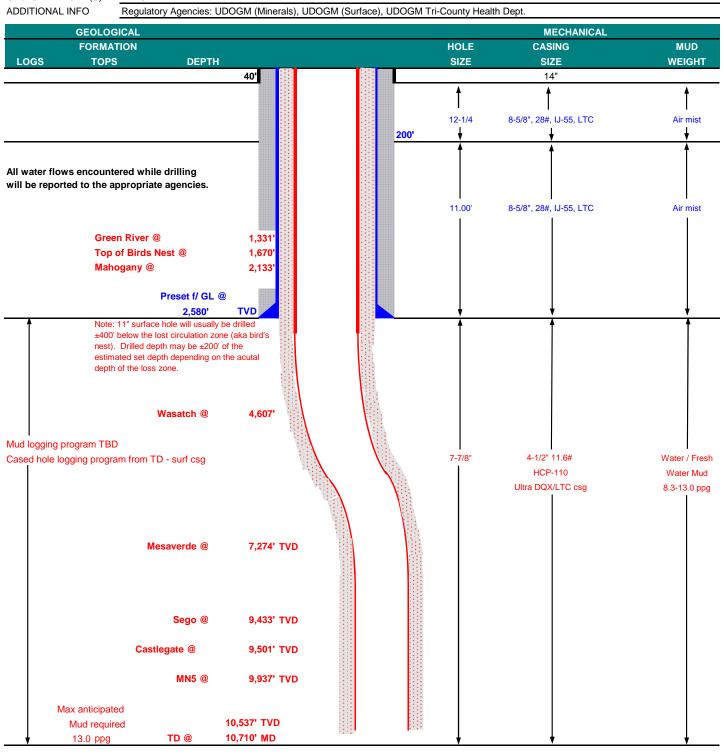
10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OIL &	GAS ONSHORE	LP		DATE	December	19, 2011		
WELL NAME MO	RGAN STAT	E 921-36H4B	S	7		10,537'	TVD	10,710' MD	
FIELD Natural Butte	COUNTY	COUNTY Uintah			FINISHED ELEVATION		5,035'		
SURFACE LOCATION	NESE	2108 FSL	745 FEL	Sec 36	T 9S	R 21E		_	
	Latitude:	39.991146	Longitude	: -109.49	2632		NAD 27		
BTM HOLE LOCATION	SENE	2071 FNL	493 FEL	Sec 36	T 9S	R 21E			
	Latitude:	39.994086	Longitude	: -109.49	173		NAD 27		
OBJECTIVE ZONE(S)	BLACKHAWK						_		
ADDITIONAL INFO	Regulatory Age	encies: UDOGM (Minerals), UDC	OGM (Surface	e). UDOG	M Tri-County F	lealth Dept.		





KERR-McGEE OIL & GAS ONSHORE LP **BLACKHAWK DRILLING PROGRAM**

CASING PROGRAM			DESIGN FACTORS								
_				LTC	DQX						
	SIZE	INT	ERVA	Ţ	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	NDUCTOR 14" 0-40'										
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,580	28.00	IJ-55	LTC	2.09	1.56	5.50	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.21		3.69
	4-1/2"	5,000	to	10,710'	11.60	HCP-110	LTC	1.19	1.21	5.26	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

9000 0.66 psi/ft = bottomhole gradient (Burst Assumptions: Pressure test with 8.4ppg @

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD				
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15				
Option 1		+ 0.25 pps flocele									
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15				
		+ 2% CaCl + 0.25 pps flocele									
SURFACE	NOTE: If well will circulate water to surface, option 2 will be utilized										
Option 2 LEAD	2,080'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00		3.82				
		+ 0.25 pps Flocele + 3% salt BWOW									
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15				
		+ 0.25 pps flocele									
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15				
PRODUCTION LEAD	4,100'	Premium Lite II +0.25 pps	320	35%	12.00		3.38				
		celloflake + 5 pps gilsonite + 10% gel									
		+ 0.5% extender									
TAIL	6,610'	50/50 Poz/G + 10% salt + 2% gel	1,560	35%	14.30		1.31				
		+ 0.1% R-3									

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

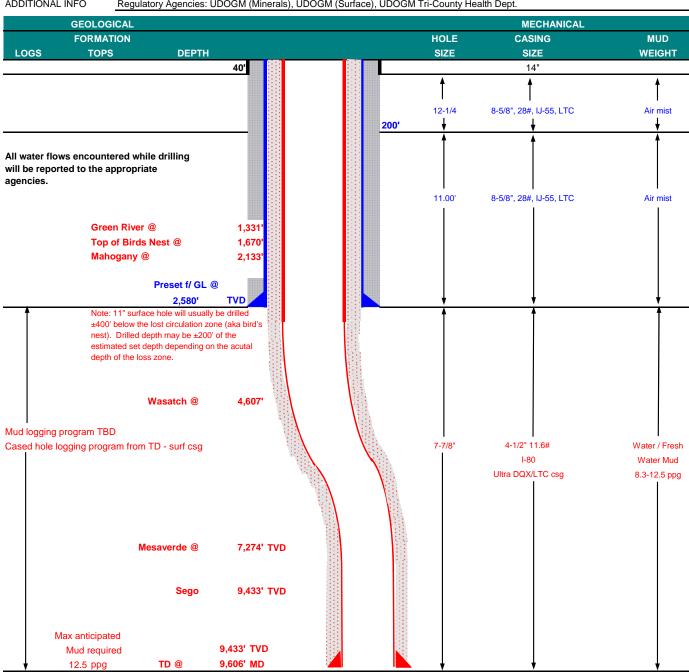
	Most rigs have PVT System for mud	monitoring. If no PVT is available, visual monitoring will be utilized	l	
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers / Chad Loesel		
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME KER	R-McGEE OIL	& GAS ONSHORI	E LP		DATE	December 19, 2011				
WELL NAME MO	RGAN STA	ГЕ 921-36Н4Е	S	TD	9,433'	TVD	9,606' MD			
FIELD Natural Butte	S	COUNTY	STATE Utah		FINI	SHED ELEVATION	5,035'			
SURFACE LOCATION	NESE	2108 FSL	745 FEL	Sec 36	T 9S	R 21E				
	Latitude:	39.991146	Longitude	: -109.49	2632		NAD 27			
BTM HOLE LOCATION	SENE	2071 FNL	493 FEL	Sec 36	T 9S	R 21E				
	Latitude:	39.994086	Longitude	: -109.49	173		NAD 27			
OBJECTIVE ZONE(S)	Wasatch/Mes	averde					_			
ADDITIONAL INFO	Regulatory Ac	rencies: LIDOGM	(Minerals) LIC	OGM (Surfa	ce) LIDC	GM Tri-Count	v Health Dent			





CACINO DDOODAM

KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM	<u>VI</u>		DESIGN FACTORS								
									DQX		
	SIZE	INT	ERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	()-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,580	28.00	IJ-55	LTC	2.09	1.56	5.50	N/A
								7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.04		2.96
								7,780	6,350	223,000	
	4-1/2"	5.000	to	9.606'	11.60	I-80	LTC	1.11	1.04	5.16	

Surface Casing:

(Burst Assumptions: TD = 125 0.73 psi/ft = frac gradient @ surface shoe ppg)

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 0.64 psi/ft = bottomhole gradient psi)

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	Г	YIELD				
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15				
Option 1			+ 0.25 pps flocele									
TOP OUT CMT (6 jobs)		1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15				
			+ 2% CaCl + 0.25 pps flocele									
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized									
Option 2	LEAD	2,080'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00		3.82				
			+ 0.25 pps Flocele + 3% salt BWOW									
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15				
			+ 0.25 pps flocele									
TOP OU	т смт	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15				
PRODUCTION	LEAD 4,106'		Premium Lite II +0.25 pps	320	35%	12.00		3.38				
			celloflake + 5 pps gilsonite + 10% gel									
			+ 0.5% extender									
	TAIL	5,500'	50/50 Poz/G + 10% salt + 2% gel	1,300	35%	14.30		1.31				
			+ 0.1% R-3									

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
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ADDITIONAL INFORMATION

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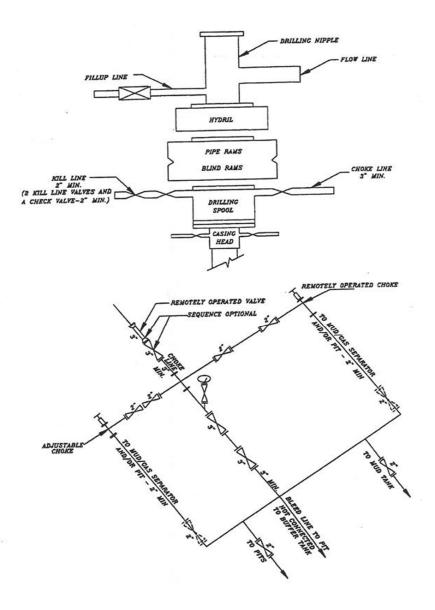
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum interval	s.
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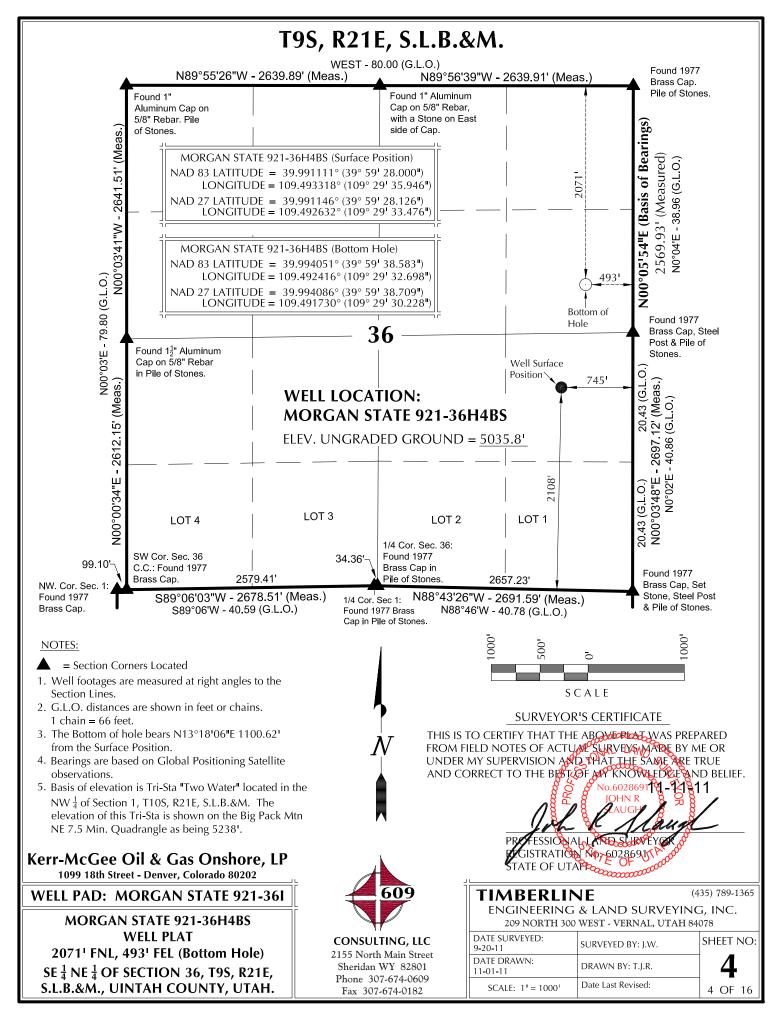
Most rigs have PVT System	for mud monitoring. If no PVT is available, visual monitoring will be utilized.		
DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Chad Loesel	-	
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A
MORGAN STATE 921-36H4BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



WELL NAME	L NAME NAD83 NA LATITUDE LONGITUDE LATITUDE							BOTTOM HOLE						
l l			UDE LATITURE	NAD27	TITLE	FOOT 4 252	1 4 71-	NAD		LUDE		AD27	MCITUS	FOOT / C53
MORGAN STATE	39°59'27.810"	109°29'35.			GITUDE 0'33.180"	FOOTAGES	39°59'2		LONGIT 109°29'32		39°59'29.342	_	ONGITUDE 0°29'30.242	
921-36I1CS	39.991058°	109.49323	39.99109.	3° 109.49	2550°	722' FEL	39.991		109.4924	·20°	39.991484°	109	9.491734°	493¹ FEL
MORGAN STATE 921-3611BS	39°59'27.873" 39.991076°	109°29'35. 109.49326)'33.279" 2577°	2096' FSL 729' FEL	39°59'3 39.9923		109°29'32 109.4924		39°59'32.613 39.992393°	1)°29'30.238).491 <i>7</i> 33°	3" 2568' FSL 493' FEL
MORGAN STATE	39°59'27.936"	109°29'35.	.847" 39°59'28.	.062" 109°29	33.378"	2102' FSL	39°59'3	35.313"	109°29'32	2.704"	39°59'35.439	9" 109	9°29'30.234	1" 2402' FNL
921-36H4CS MORGAN STATE	39.991093° 39°59'28.000"	109.49329 109°29'35.			2605° '33.476"	737' FEL 2108' FSL	39.993 39°59'3		109.4924 109°29'32		39.993177° 39°59'38.709		9.491732° 9°29'30.228	493' FEL 3" 2071' FNL
921-36H4BS	39.991111°	109.49331	8° 39.99114	6° 109.49	2632°	745' FEL	39.994		109.4924		39.994086°	1.00	9.491730°	493' FEL
MORGAN STATE 12-36	39°59'26.847" 39.990791°	109°29'35. 109.49323			'33.1 <i>7</i> 0" 2547°	1992' FSL 721' FEL								
L		1.03.13323		IVE COORD			e Position	to Botto	om Hole					
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAS		NAME	NOR	TH .	EAST	WELL NA		NORTH	EAST
MORGAN STATE 921-36I1CS	142.31	228.81	MORGAN STATE 921-3611BS	466.9'	236.	.9' MORG 921-36	AN STATE H4CS	746.	.5' 2	245.0'	MORGAN S 921-36H4BS		1071.1'	253.2
	**	V50°06'30'0'80'4'4	O BEAR NOO°C	7° 062,	- 7.027 - N18,42=18	1.56.53.56.898		A	7258.725 8001.42	833° (69	,,46			Bottom of Hole
		>	THE STATE OF THE S	AL STATE OF	70, 70,		,09		30'	N o		,09	000	
	La Maria	The state of the s	CALANS CON OR	Hand Son	● EXI	STING W	/ELL: N		S	CALE		, V9		
P. F.	Property of the property of th	ON A CONTRACTOR OF THE PARTY OF	CALANS LANGE OF A LANG	HART STATE OF STATE O	© EXI	STING W	/ELL: N		S	CALE				
Kerr-Mc(Gee Oil & 8th Street - Der	د Gas C nver, Color	Onshore, I	LP ≕⊧	© EXI (Dry	/ Hole Mark	/ELL: N	MORC	S O	ATE 1	12-36			
Kerr-Mc(Gee Oil & 8th Street - Der	د Gas C nver, Color	Onshore, I	LP ≕⊧	© EXI (Dry		/ELL: N	MORO	S OF STATE O	ATE 1	12-36 INE			435) 789-1365
Kerr-McC 1099 18 WELL PAC WEL	Gee Oil & Bith Street - Der Oil & Oi	Gas Conver, Color	Onshore, I rado 80202 ATE 921-3 CE PLAT	LP ≕⊧	© EXI (Dry	/ Hole Mark	/ELL: N	MORO	S GAN ST.	ATE 1	12-36 I NE G & LANE	D SUI	(A. RVEYING	G, INC.
Kerr-Mc(1099 18 WELL PAC WEL WELL	Gee Oil & 6th Street - Der D - MORG L PAD INTE S - MORGAN	Gas Conver, Color AN STA RFEREN STATE 92	Onshore, I rado 80202 ATE 921-3 CE PLAT 21-3611CS,	LP ≕⊧		Hole Mark	/ELL: N	MORO	S GAN ST.	CALE ATE 1 ERLI ERINO DRTH 3	INE G & LANC	D SUI	(ARVEYING	G, INC. 4078
Kerr-McC 1099 18 WELL PAE WELL WELL	Gee Oil & Bith Street - Der Oil & Oi	CGAS CONVER, COLOR CAN STAREREN STATE 92 STE 921-36	Onshore, I rado 80202 ATE 921-3 CE PLAT 21-3611CS, 511BS,	LP ≕⊧	CONSI	/ Hole Mark	VELL: Noter)	TI E DATE 9-20-	S O GAN ST. IMBE ENGINE 209 NO E SURVEYEL 11	CALE CATE 1 CATE 1 CATE 1 CATE 1	12-36 I NE G & LANE	D SUI	(ARVEYING	G, INC.
Kerr-McC 1099 18 WELL PAE WELL WELL	Gee Oil & 6th Street - Der 7 - MORG L PAD INTE 6.S - MORGAN MORGAN STA	CGAS CONVER, COLOR CAN STAREREN STATE 92 STE 921-36 TE 921-36 TE 921-36	Onshore, I rado 80202 ATE 921-3 CE PLAT 21-3611CS, 511BS, 5H4CS & 5H4CS &	LP ≕⊧	CONSI 2155 No Sherida	Hole Mark	VELL: Ner)	TI E DATE 9-20-	S O SAN STA SAN STA BENGINE 209 NO E SURVEYEE -11 E DRAWN:	CALE CATE 1 CATE 1 CATE 1 CATE 1	INE G & LANC	D SUI ERNAL D BY: J.V	RVEYING L, UTAH 84 W.	G, INC. 4078

TOTAL WELL PAD AREA = 4.00 ACRES TOTAL DISTURBANCE AREA = 5.51 ACRES SHRINKAGE FACTOR = 1.10 SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36I WELL PAD - LOCATION LAYOUT

MORGAN STATE 921-36I1CS, MORGAN STATE 921-3611BS, **MORGAN STATE 921-36H4CS & MORGAN STATE 921-36H4BS** LOCATED IN SECTION 36, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH



2155 North Main Street

Sheridan, WY 82801

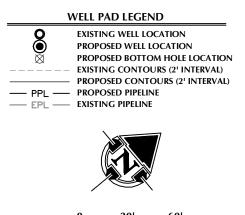
Phone 307-674-0609 Fax 307-674-0182

EXCESS MATERIAL = 1,926 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT +/- 10,730 C.Y. RESERVE PIT CAPACITY (2' OF FREEBOARD) +/- 41,190 BARRELS

TIMBERLINE



60¹ HORIZONTAL E 1" = 60" 21 CONTOURS

SCALE: 1"=60" DATE: 11/11/11 SHEET NO: b **REVISED:**

6 OF 16

(435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

(21 OF FREEBOARD) +/- 32,680 BARRELS

TIMBERLINE

ENGINEERING & LAND SURVEYING, INC.

209 NORTH 300 WEST - VERNAL, UTAH 84078

CONSULTING, LLC

2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

ARKO\2011\2011_65_NBU_FOCUS_921-36\DWGS\MO

WELL PAD - MORGAN STATE 921-36I

WELL PAD - LOCATION LAYOUT

MORGAN STATE 921-36I1CS,

MORGAN STATE 921-3611BS,

MORGAN STATE 921-36H4CS &

MORGAN STATE 921-36H4BS

LOCATED IN SECTION 36, T9S, R21E,

S.L.B.&M., UINTAH COUNTY, UTAH

21 CONTOURS

1"=60" DATE: 11/15/11 SHEET NO:

HORIZONTAL E

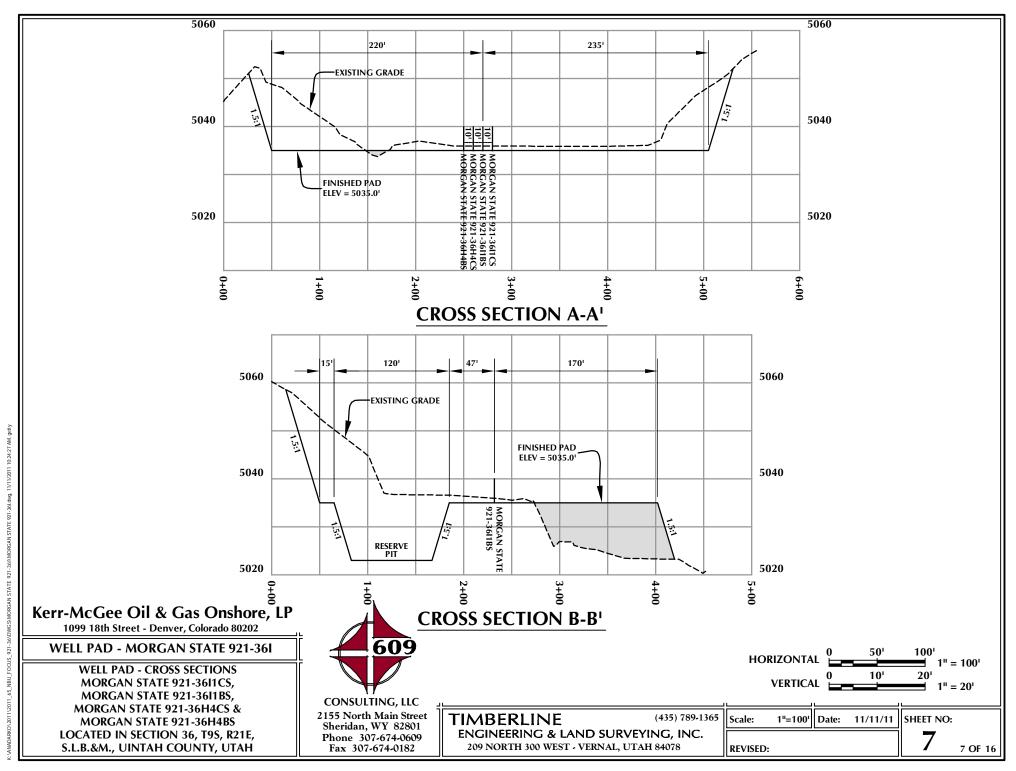
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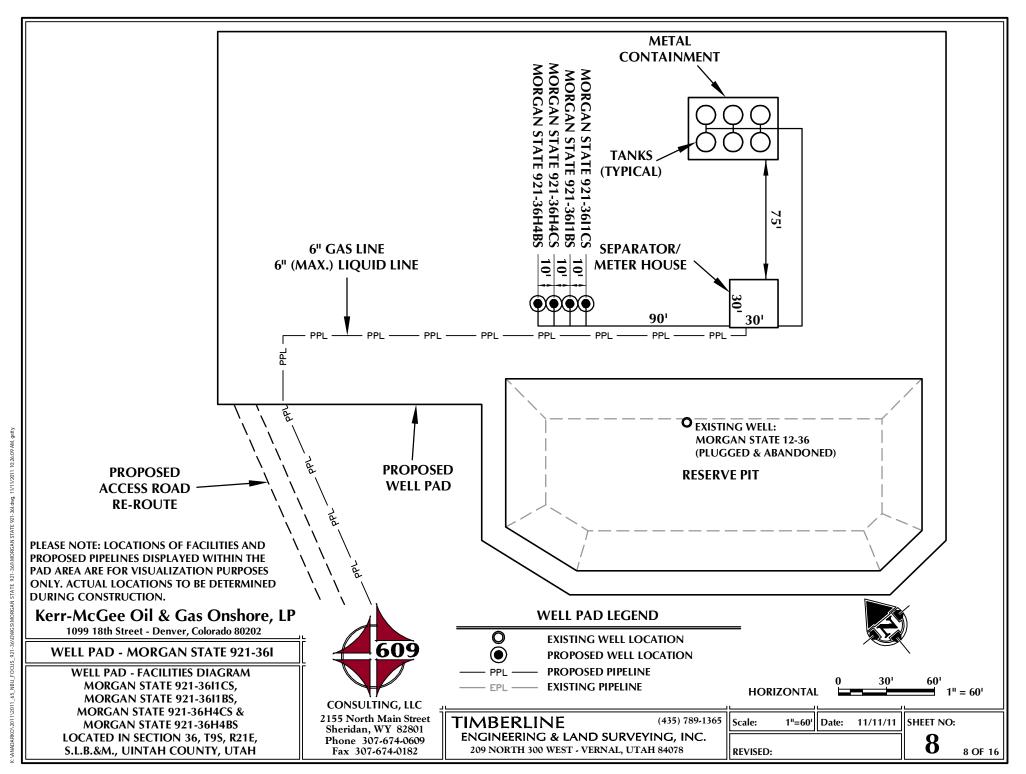
REVISED:

(435) 789-1365

60¹

6B 6B OF 16





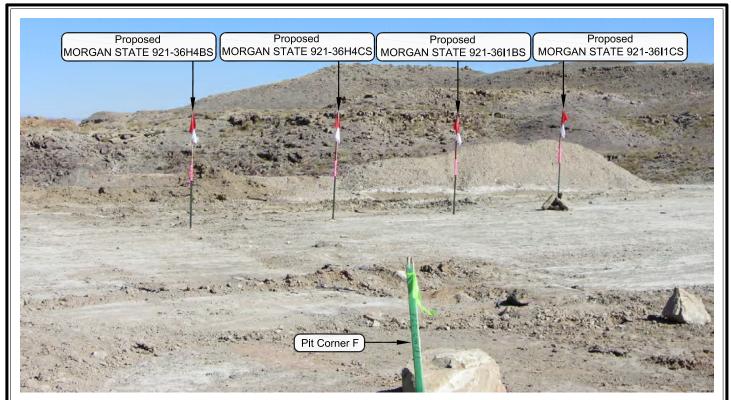


PHOTO VIEW: FROM PIT CORNER F TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36I

LOCATION PHOTOS MORGAN STATE 921-36I1CS, MORGAN STATE 921-3611BS, MORGAN STATE 921-36H4CS & MORGAN STATE 921-36H4BS LOCATED IN SECTION 36, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street

Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

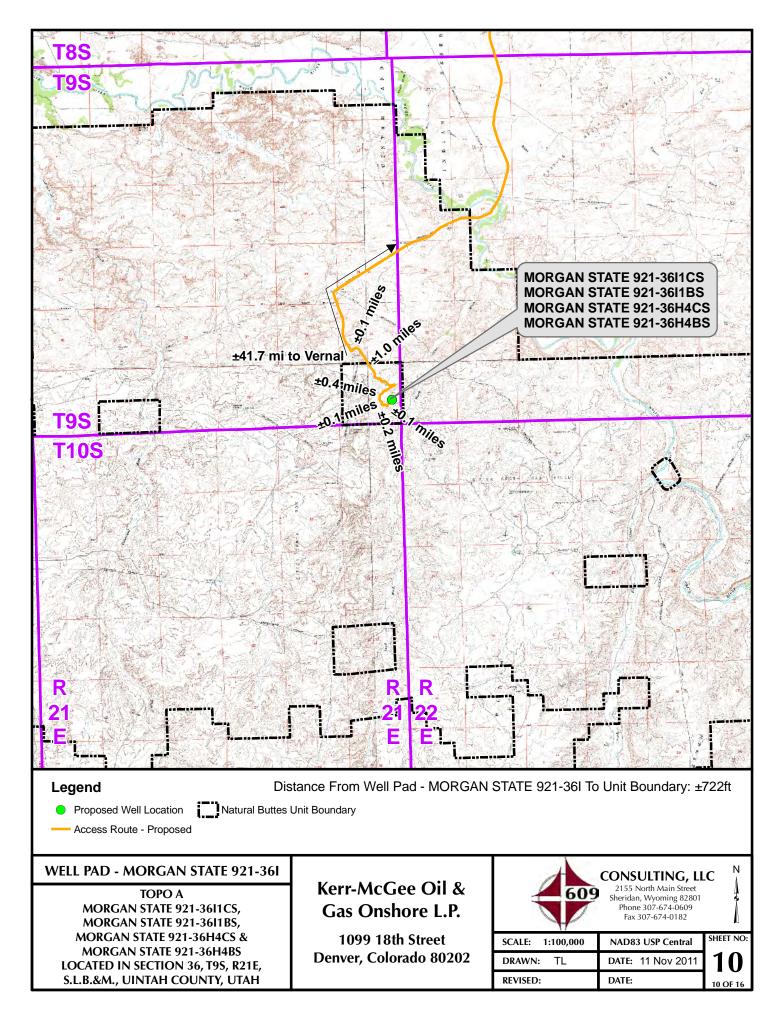
ΤI	M	В	EI	RL	I	N	E

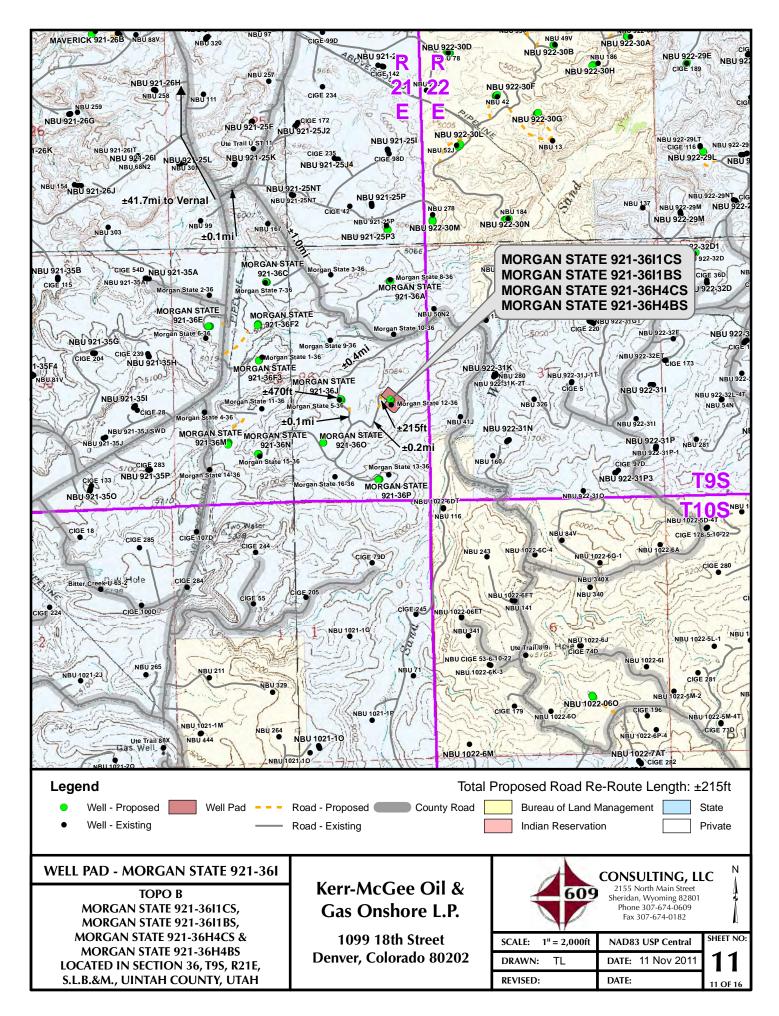
(435) 789-1365

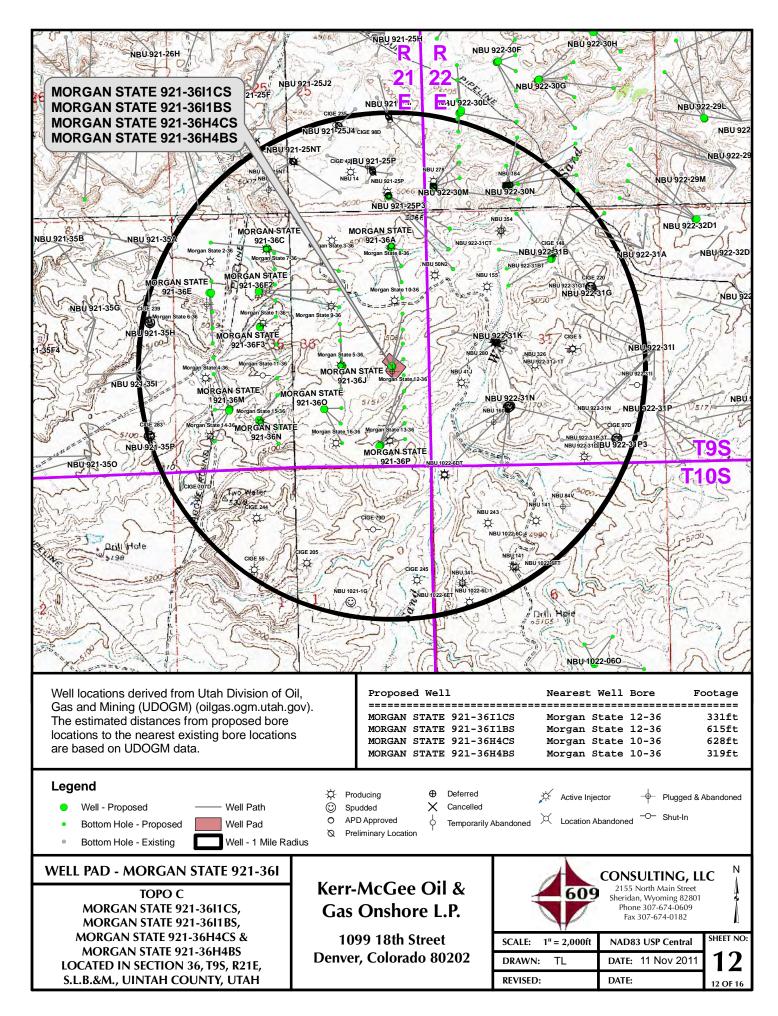
9 OF 16

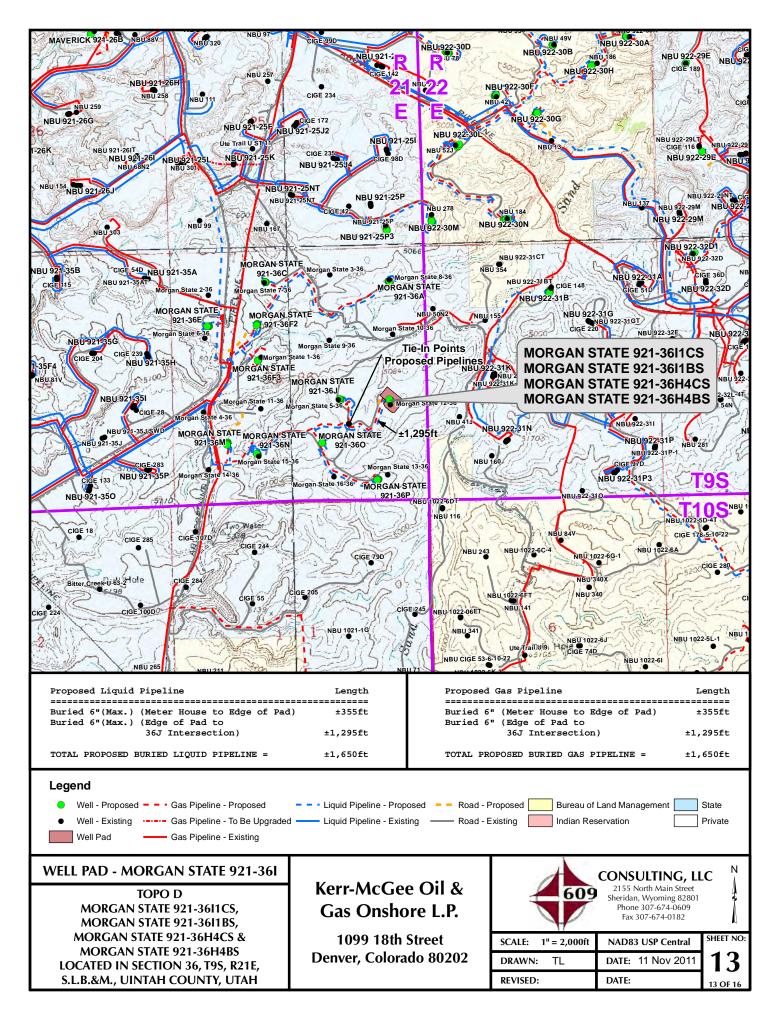
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

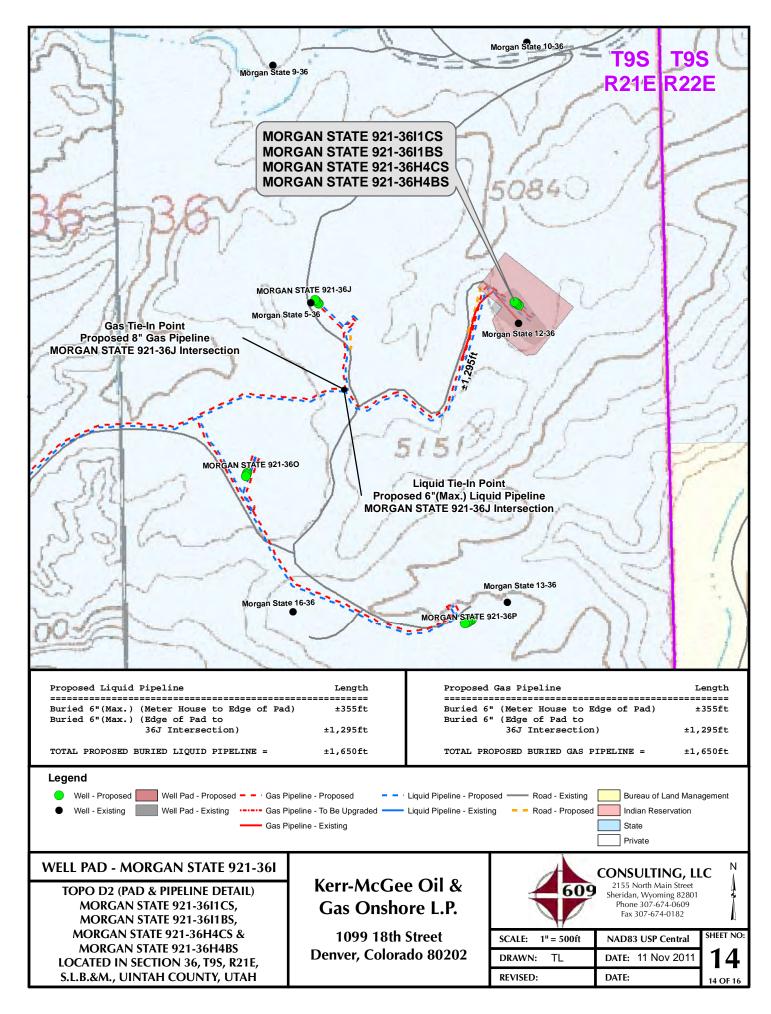
DATE PHOTOS TAKEN: 9-20-11	PHOTOS TAKEN BY: J.W.	SHEET NO:
DATE DRAWN: 11-01-11	DRAWN BY: T.J.R.	9
Date Last Revised:		9 OF 16

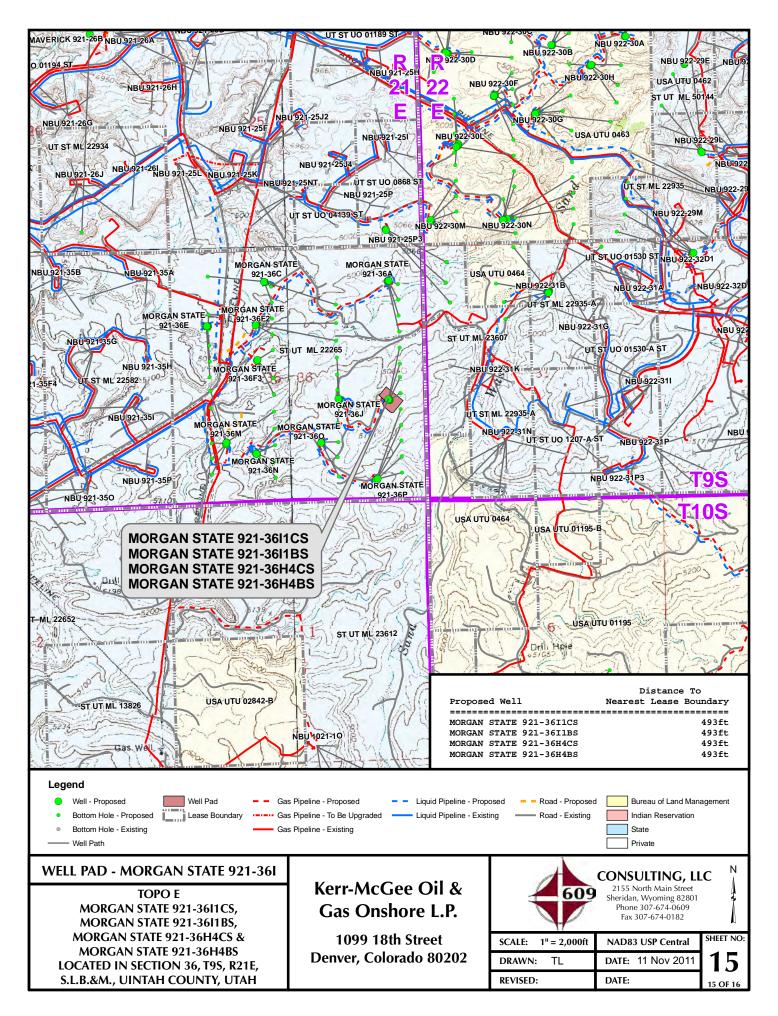












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – MORGAN STATE 921-36I WELLS – MORGAN STATE 921-36I1CS, MORGAN STATE 921-36I1BS, MORGAN STATE 921-36H4CS & MORGAN STATE 921-36H4BS Section 36, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.2 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 1.0 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction approximately 0.4 miles to the proposed MORGAN STATE 921-36J well pad. Proceed in a southeasterly direction approximately 470 feet through the proposed MORGAN STATE 921-36J well pad to a second service road to the south. Proceed in a southerly direction along the second service road approximately 0.1 miles to a third service road to the northeast. Exit left and proceed in a northeasterly direction along the third service road approximately 0.2 miles to the proposed access road to the northeast. Follow road flags in a northeasterly direction approximately 215 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.6 miles in a southerly direction.

SHEET 16 OF 16

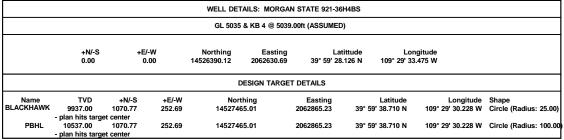
API Well Number: 43047 522268 OUTAB - UTM (feet), NAD27, Zone 12N

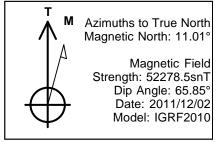
Site: MORGAN STATE 921-36I Well: MORGAN STATE 921-36H4BS

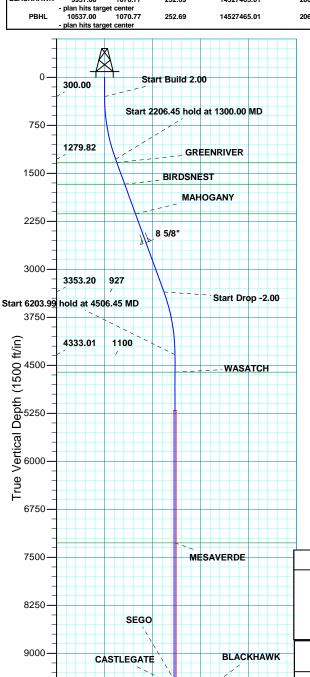
Wellbore: OH

Design: PLAN #1 PRELIMINARY









9750

10500

11250

-750

10537.00

1100

750

TD at 10710.43

2250

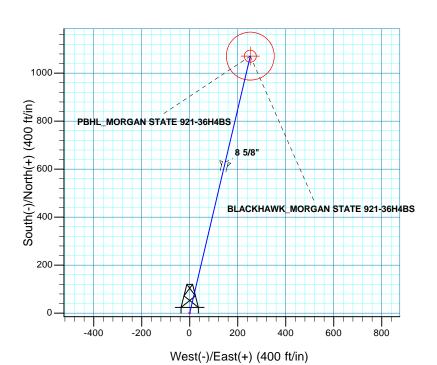
3000

1500

Vertical Section at 13.28° (1500 ft/in)

Scientific Drilling

Rocky Mountain Operations



				SECI	ION DETAI	LS			
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	g
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	13.28	1279.82	168.15	39.68	2.00	13.28	172.77	
3506.45	20.00	13.28	3353.20	902.62	213.01	0.00	0.00	927.42	
4506.45	0.00	0.00	4333.01	1070.77	252.69	2.00	180.00	1100.19	
10710.43	0.00	0.001	0537.00	1070.77	252.69	0.00	0.00	1100.19	PBHL_MORGAN STATE 921-36H4BS
								FORM	MATION TOD DETAIL C

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N Formation GREENRIVER BIRDSNEST **TVDPath** MDPath 1354.47 1715.23 1331.00 Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS) 1670.00 2207.94 4780.43 MAHOGANY Ellipsoid: Clarke 1866 Zone: Zone 12N (114 W to 108 W) Location: SECTION 36 T9S R21E 4607.00 WASATCH 7274.00 9433.00 7447.43 9606.43 MESAVERDE SEGO System Datum: Mean Sea Level 9501.00 9674.43 CASTLEGATE 9937.00 10110.43 BLACKHAWK CASING DETAILS

TVD 2583.00 MD 2686.82 Name 8 5/8" 8.625

RECEIVED:

Plan: PLAN #1 PRELIMINARY (MORGAN STATE 921-36H4BS/OH) Created By: RobertScott Date: 9:49, December 02 2011

API Well Number: 43047522880000



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36I MORGAN STATE 921-36H4BS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

02 December, 2011



API Well Number: 43047522880000



SDIPlanning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: MORGAN STATE 921-36I
Well: MORGAN STATE 921-36H4BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36H4BS

GL 5035 & KB 4 @ 5039.00ft (ASSUMED) GL 5035 & KB 4 @ 5039.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Zone 12N (114 W to 108 W)

Mean Sea Level

Site MORGAN STATE 921-36I, SECTION 36 T9S R21E

Northing: 14,526,390.12 usft Site Position: Latitude: 39° 59' 28.126 N From: Lat/Long Easting: 2,062,630.69 usft Longitude: 109° 29' 33.475 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.97 13.200 in

System Datum:

Well MORGAN STATE 921-36H4BS, 2108 FSL 745 FEL

 Well Position
 +N/-S
 0.00 ft
 Northing:
 14,526,390.12 usft
 Latitude:
 39° 59' 28.126 N

 +E/-W
 0.00 ft
 Easting:
 2,062,630.69 usft
 Longitude:
 109° 29' 33.475 W

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 5,035.00 ft

Wellbore ОН Field Strength Magnetics **Model Name** Sample Date Declination Dip Angle (nT) (°) (°) IGRF2010 2011/12/02 11.01 65.85 52.278

PLAN #1 PRELIMINARY Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 13.28

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	13.28	1,279.82	168.15	39.68	2.00	2.00	0.00	13.28	
3,506.45	20.00	13.28	3,353.20	902.62	213.01	0.00	0.00	0.00	0.00	
4,506.45	0.00	0.00	4,333.01	1,070.77	252.69	2.00	-2.00	0.00	180.00	
10,710.43	0.00	0.00	10,537.00	1,070.77	252.69	0.00	0.00	0.00	0.00 PE	BHL_MORGAN ST



SDIPlanning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36I

 Site:
 MORGAN STATE 921-36I

 Well:
 MORGAN STATE 921-36H4BS

Wellbore: OH

Project:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36H4BS GL 5035 & KB 4 @ 5039.00ft (ASSUMED) GL 5035 & KB 4 @ 5039.00ft (ASSUMED)

True

sign:	PLAN #1 PRE	LIIVIINAKY							
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
Start Build 2		0.00	000.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	13.28	399.98	1.70	0.40	1.75	2.00	2.00	0.00
500.00 600.00	4.00 6.00	13.28 13.28	499.84 599.45	6.79 15.27	1.60 3.60	6.98 15.69	2.00 2.00	2.00 2.00	0.00 0.00
700.00 800.00	8.00 10.00	13.28 13.28	698.70 797.47	27.13 42.36	6.40 10.00	27.88 43.52	2.00 2.00 2.00	2.00 2.00 2.00	0.00 0.00 0.00
900.00	12.00	13.28	895.62	60.93	14.38	62.60	2.00	2.00	0.00
1,000.00 1,100.00 1,200.00	14.00 16.00 18.00	13.28 13.28 13.28	993.06 1,089.64 1,185.27	82.82 108.01 136.46	19.54 25.49 32.20	85.10 110.98 140.21	2.00 2.00 2.00	2.00 2.00 2.00	0.00 0.00 0.00
1,300.00	20.00	13.28	1,279.82	168.15	39.68	172.77	2.00	2.00	0.00
	5 hold at 1300.00								
1,354.47	20.00	13.28	1,331.00	186.28	43.96	191.40	0.00	0.00	0.00
1,400.00	20.00	13.28	1,373.78	201.44	47.54	206.97	0.00	0.00	0.00
1,500.00	20.00	13.28	1,467.75	234.72	55.39	241.17	0.00	0.00	0.00
1,600.00 1,700.00	20.00 20.00	13.28 13.28	1,561.72 1,655.69	268.01 301.30	63.25 71.10	275.37 309.58	0.00 0.00	0.00 0.00	0.00 0.00
1,715.23	20.00	13.28	1,670.00	306.37	72.30	314.78	0.00	0.00	0.00
BIRDSNEST									
1,800.00 1,900.00	20.00 20.00	13.28 13.28	1,749.66 1,843.63	334.59 367.88	78.96 86.81	343.78 377.98	0.00 0.00	0.00 0.00	0.00 0.00
2,000.00 2,100.00 2,200.00	20.00 20.00 20.00	13.28 13.28 13.28	1,937.60 2,031.57 2,125.54	401.16 434.45 467.74	94.67 102.52 110.38	412.18 446.38 480.59	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
2,207.94	20.00	13.28	2,133.00	470.38	111.00	483.30	0.00	0.00	0.00
MAHOGANY	1		,						
2,300.00 2,400.00 2,500.00 2,600.00	20.00 20.00 20.00 20.00	13.28 13.28 13.28 13.28	2,219.51 2,313.48 2,407.45 2,501.42	501.03 534.31 567.60 600.89	118.23 126.09 133.95 141.80	514.79 548.99 583.19 617.39	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
2,686.82	20.00	13.28	2,583.00	629.79	148.62	647.09	0.00	0.00	0.00
8 5/8"									
2,700.00 2,800.00 2,900.00 3,000.00	20.00 20.00 20.00 20.00	13.28 13.28 13.28 13.28	2,595.39 2,689.35 2,783.32 2,877.29	634.18 667.46 700.75 734.04	149.66 157.51 165.37 173.22	651.60 685.80 720.00 754.20	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
3,100.00 3,200.00	20.00 20.00	13.28 13.28	2,971.26 3,065.23	767.33 800.62	181.08 188.93	788.40 822.61	0.00 0.00	0.00 0.00	0.00 0.00
3,300.00	20.00	13.28	3,159.20	833.90	196.79	856.81	0.00	0.00	0.00
3,400.00 3,500.00	20.00 20.00	13.28 13.28	3,253.17 3,347.14	867.19 900.48	204.64 212.50	891.01 925.21	0.00 0.00	0.00 0.00	0.00 0.00
3,506.45	20.00	13.28	3,353.20	902.62	213.01	927.42	0.00	0.00	0.00
Start Drop -		10.20	5,555.25	32.02	_10.01	V=1.12	0.00	0.00	0.00
3,600.00 3,700.00 3,800.00	18.13 16.13 14.13	13.28 13.28 13.28	3,441.62 3,537.17 3,633.70	932.36 961.03 986.43	220.02 226.79 232.78	957.97 987.42 1,013.52	2.00 2.00 2.00	-2.00 -2.00 -2.00	0.00 0.00 0.00
3,900.00	12.13	13.28	3,731.09	1,008.53	238.00	1,036.24	2.00	-2.00	0.00
4,000.00	10.13	13.28	3,829.20	1,027.32	242.43	1,055.54	2.00	-2.00	0.00



SDIPlanning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: MORGAN STATE 921-36I

 Site:
 MORGAN STATE 921-36I

 Well:
 MORGAN STATE 921-36H4BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36H4BS GL 5035 & KB 4 @ 5039.00ft (ASSUMED) GL 5035 & KB 4 @ 5039.00ft (ASSUMED)

True

sign:	PLAN #1 PRE	LIMINART							
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,100.00	8.13	13.28	3,927.93	1,042.76	246.08	1,071.40	2.00	-2.00	0.00
4,200.00	6.13	13.28	4,027.15	1,054.84	248.93	1,083.81	2.00	-2.00	0.00
4,300.00	4.13	13.28	4,126.74	1,063.54	250.98	1,092.75	2.00	-2.00	0.00
4,400.00	2.13	13.28	4,226.59	1,068.85	252.23	1,098.21	2.00	-2.00	0.00
4.500.00	0.40	40.00	4 200 57	4 070 77	252.00	1 100 10	2.00	2.00	0.00
4,500.00	0.13	13.28	4,326.57	1,070.77	252.69	1,100.18	2.00	-2.00	0.00
4,506.45	0.00	0.00	4,333.01	1,070.77	252.69	1,100.19	2.00	-2.00	0.00
	9 hold at 4506.4		4 406 E7	1 070 77	252.60	1 100 10	0.00	0.00	0.00
4,600.00	0.00	0.00	4,426.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
4,700.00	0.00	0.00	4,526.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
4,780.43	0.00	0.00	4,607.00	1,070.77	252.69	1,100.19	0.00	0.00	0.00
WASATCH									
4,800.00	0.00	0.00	4,626.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
4,900.00	0.00	0.00	4,726.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,000.00	0.00	0.00	4,826.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,100.00	0.00	0.00	4,926.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,200.00	0.00	0.00	5,026.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,300.00	0.00	0.00	5,126.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,400.00	0.00	0.00	5,226.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,500.00	0.00	0.00	5,326.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,600.00	0.00	0.00	5,426.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,700.00	0.00	0.00	5,526.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
				,					
5,800.00	0.00	0.00	5,626.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
5,900.00	0.00	0.00	5,726.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,000.00	0.00	0.00	5,826.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,100.00	0.00	0.00	5,926.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,200.00	0.00	0.00	6,026.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,300.00	0.00	0.00	6,126.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,400.00	0.00	0.00	6,226.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,500.00	0.00	0.00	6,326.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,600.00	0.00	0.00	6,426.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,700.00	0.00	0.00	6,526.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,800.00	0.00	0.00	6,626.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
6,900.00	0.00	0.00	6,726.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
7,000.00	0.00	0.00	6,826.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
7,100.00	0.00	0.00	6,926.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
7,200.00	0.00	0.00	7,026.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
7,300.00	0.00	0.00	7,126.57	1,070.77	252.69	1 100 10	0.00	0.00	0.00
7,300.00	0.00	0.00	7,126.57 7,226.57	1,070.77	252.69 252.69	1,100.19 1,100.19	0.00	0.00	0.00
- 44- 40	0.00	0.00	7,226.57	1,000	252.69		0.00	0.00	0.00
7,447.43 MESAVERD		0.00	1,214.00	1,070.77	202.03	1,100.19	0.00	0.00	0.00
7,500.00	0.00	0.00	7,326.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
7,600.00	0.00	0.00	7,326.57 7,426.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
			,						
7,700.00	0.00	0.00	7,526.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
7,800.00	0.00	0.00	7,626.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
7,900.00	0.00	0.00	7,726.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
8,000.00	0.00	0.00	7,826.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
8,100.00	0.00	0.00	7,926.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
8,200.00	0.00	0.00	8,026.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
8,300.00	0.00	0.00	8,126.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
8,400.00	0.00	0.00	8,226.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
8,500.00	0.00	0.00	8,326.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
8,600.00	0.00	0.00	8,426.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9 700 00	0.00						0.00	0.00	0.00
8,700.00	0.00	0.00	8,526.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00



SDI **Planning Report**



Database: Company: Project:

EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

MORGAN STATE 921-36I

Site: Well: MORGAN STATE 921-36H4BS

Wellbore:

Design: PLAN #1 PRELIMINARY Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36H4BS GL 5035 & KB 4 @ 5039.00ft (ASSUMED) GL 5035 & KB 4 @ 5039.00ft (ASSUMED)

True

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00	0.00	0.00	8,626.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
8,900.00	0.00	0.00	8,726.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,000.00	0.00	0.00	8,826.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,100.00	0.00	0.00	8,926.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,200.00	0.00	0.00	9,026.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,300.00	0.00	0.00	9,126.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,400.00	0.00	0.00	9,226.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,500.00	0.00	0.00	9,326.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,600.00	0.00	0.00	9,426.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,606.43	0.00	0.00	9,433.00	1,070.77	252.69	1,100.19	0.00	0.00	0.00
SEGO									
9,674.43	0.00	0.00	9,501.00	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,700.00	0.00	0.00	9,526.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,800.00	0.00	0.00	9,626.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
9,900.00	0.00	0.00	9,726.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,000.00	0.00	0.00	9,826.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,100.00	0.00	0.00	9,926.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,110.43	0.00	0.00	9,937.00	1,070.77	252.69	1,100.19	0.00	0.00	0.00
	K - BLACKHAW								
10,200.00	0.00	0.00	10,026.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,300.00	0.00	0.00	10,126.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,400.00	0.00	0.00	10,226.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,500.00	0.00	0.00	10,326.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,600.00	0.00	0.00	10,426.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,700.00	0.00	0.00	10,526.57	1,070.77	252.69	1,100.19	0.00	0.00	0.00
10,710.43	0.00	0.00	10,537.00	1,070.77	252.69	1,100.19	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLACKHAWK_MORGAI - plan hits target cent - Circle (radius 25.00		0.00	9,937.00	1,070.77	252.69	14,527,465.01	2,062,865.23	39° 59' 38.710 N	109° 29' 30.228 W
PBHL_MORGAN STATE - plan hits target cent - Circle (radius 100.0		0.00	10,537.00	1,070.77	252.69	14,527,465.01	2,062,865.23	39° 59' 38.710 N	109° 29' 30.228 W

Casing Points						
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter	
	(ft)	(ft)	Nan	ne (in)	(in)	
	2,686.82	2,583.00	8 5/8"	8.62	25 11.000	

API Well Number: 43047522880000



SDIPlanning Report



Database: EDM5000-RobertS-Local US ROCKIES REGION P

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 MORGAN STATE 921-36I

 Well:
 MORGAN STATE 921-36H4BS

Wellbore: OH

Project:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36H4BS GL 5035 & KB 4 @ 5039.00ft (ASSUMED) GL 5035 & KB 4 @ 5039.00ft (ASSUMED)

True

mations								
	Measured Depth (ft)	Vertical Depth (ft)		Name	Lithology	Dip (°)	Dip Direction (°)	
	1,354.47	1,331.00	GREENRIVER					
	1,715.23	1,670.00	BIRDSNEST					
	2,207.94	2,133.00	MAHOGANY					
	4,780.43	4,607.00	WASATCH					
	7,447.43	7,274.00	MESAVERDE					
	9,606.43	9,433.00	SEGO					
	9,674.43	9,501.00	CASTLEGATE					
	10,110.43	9,937.00	BLACKHAWK					

Plan Annotations								
N	Measured	Vertical	Local Coor	dinates				
	Depth	Depth	+N/-S	+E/-W				
	(ft)	(ft)	(ft)	(ft)	Comment			
	300.00	300.00	0.00	0.00	Start Build 2.00			
	1,300.00	1,279.82	168.15	39.68	Start 2206.45 hold at 1300.00 MD			
	3,506.45	3,353.20	902.62	213.01	Start Drop -2.00			
	4,506.45	4,333.01	1,070.77	252.69	Start 6203.99 hold at 4506.45 MD			
	10,710.43	10,537.00	1,070.77	252.69	TD at 10710.43			

Surface Use Plan of Operations

1 of 9

Morgan State 921-36H4BS/ 921-36H4CS/ 921-36I1BS/ 921-36I1CS

Surface:	2108 FSL / 745 FEL	NESE	Lot					
BHL:	2071 FNL / 493 FEL	SENE	Lot					
MC	ORGAN STATE 921-36H4C	S						
Surface:	2102 FSL / 737 FEL	NESE	Lot					
BHL:	2402 FNL / 493 FEL	SENE	Lot					
MORGAN STATE 921-3611BS								
Surface:	2096 FSL / 729 FEL	NESE	Lot					
BHL:	2568 FSL / 493 FEL	NESE	Lot					
BHL:	2568 FSL / 493 FEL	NESE	Lot					
	2568 FSL / 493 FEL DRGAN STATE 921-3611CS		Lot					
	2000.02, 1,0.122		Lot					
MC	DRGAN STATE 921-36I1CS	3						

MORGAN STATE 921-36H4BS

Pad: MORGAN STATE 921-36I PAD

Section 36 T9S R21E Mineral Lease: ML-22265

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. **Existing Roads**:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

Approximately ± 215 ' (0.04 miles) of proposed road re-route is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the Morgan State 12-36. The Morgan State 12-36 well location is a plugged and abandoned well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of December 5, 2011.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,650$ ' and the individual segments are broken up as follows:

 $\pm 355'$ (0.1 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

 $\pm 1,295'$ (0.2 miles) –New 6" buried gas pipeline from the edge of pad to the 921-36J intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,650$ ' and the individual segments are broken up as follows:

±355' (0.1 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

 $\pm 1,295'$ (0.2 miles) –New 6" buried liquid pipeline from the edge of pad to the 921-36J intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Ouray #1 SWD in Sec. 1 T9S R21E NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/

completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

Morgan State 921-36H4BS/ 921-36H4CS/ 921-36I1BS/ 921-36I1CS

Surface Use Plan of Operations 8 of 9

L. Other Information:

None

Surface Use Plan of Operations 9 of 9

Morgan State 921-36H4BS/ 921-36H4CS/ 921-36I1BS/ 921-36I1CS

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Tanielle Piernot

December 19, 2011

Date



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

December 14, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11 Morgan State 921-36H4BS

T9S-R21E

Section 36: NESE (Surface), SENE (Bottom Hole)

Surface: 2108' FSL, 745' FEL Bottom Hole: 2071' FNL, 493' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

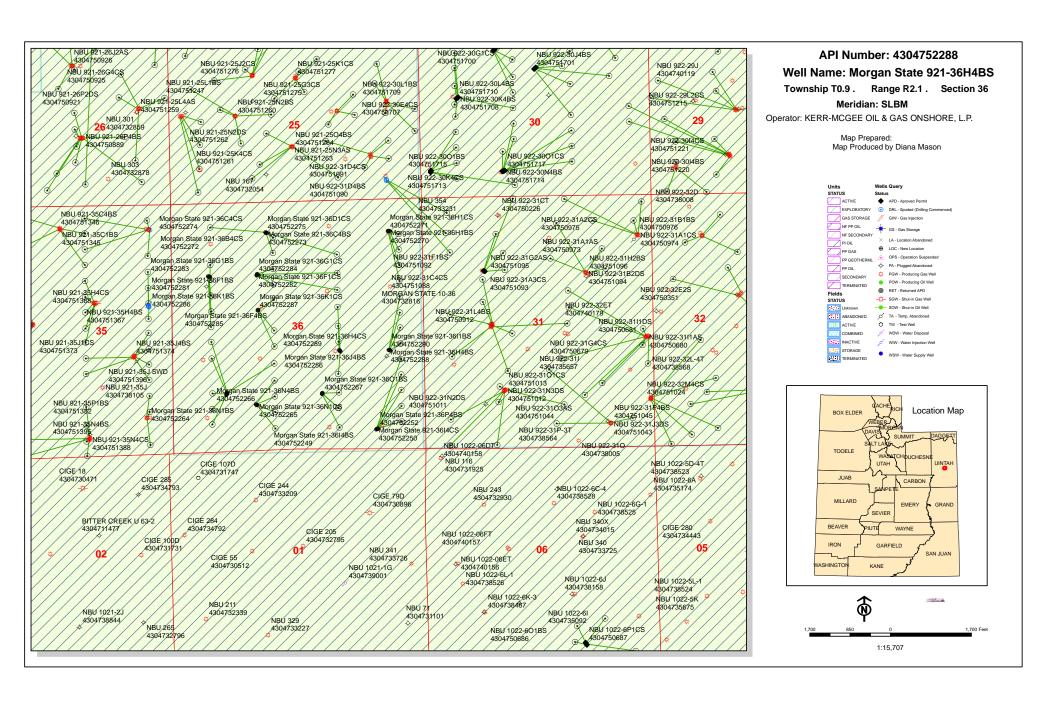
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

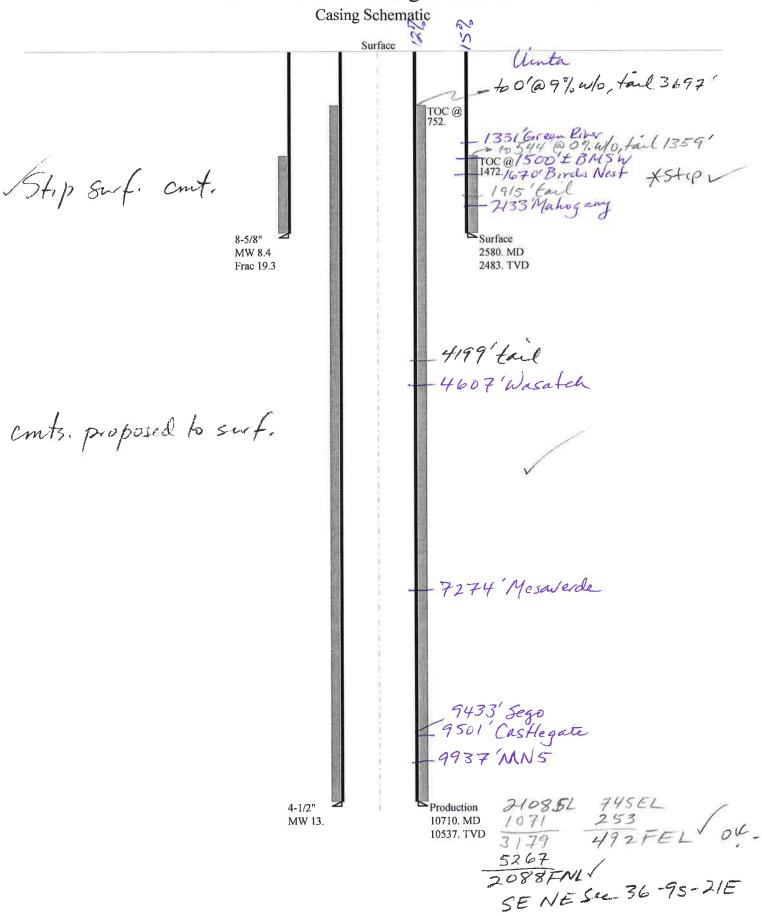
Joe Matney Sr. Staff Landman



BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. Morgan State 921-36H4BS 43047522880000

Well Name		KERR-MCGEE C	IL & GAS ONSHO	RE, L.P. Morgan	State 92	1-36H4B5		
String		Surf	Prod				ī	
Casing Size(")		8.625	4.500				ī	
Setting Depth (TVD)		2438	10537				ī	
Previous Shoe Setting Dept	h (TVD)	0	2438				ī	
Max Mud Weight (ppg)		8.4	13.0				ī	
BOPE Proposed (psi)		500	5000				i	
Casing Internal Yield (psi)		3390	10690				i	
Operators Max Anticipated	Pressure (psi)	6954	12.7				i	
Calculations		Surf Stri	na			8.625	"	
Max BHP (psi)			52*Setting D	enth*MW=	1065	0.023		
			oz setting z	optii iii ii	1065		BOPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ng Depth)=	772	_	NO	air drill
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ng Depth)=	529		NO I	Reasonable depth in area
				0 1 /	1329		1	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous Sh	oe Depth)=	529	-	NO	
Required Casing/BOPE Tes	st Pressure=				2373		psi	,
*Max Pressure Allowed @ 1	Previous Casing S	Shoe=			0		psi *Ass	sumes 1psi/ft frac gradient
					11-			
Calculations		Prod Stri				4.500	"	
Max BHP (psi)		.0	52*Setting D	epth*MW=	7123			
MASP (Gas) (psi)		May DH	D (0.12*Satti	ng Donth)-				quate For Drilling And Setting Casing at Depth?
			P-(0.12*Setti		5859		NO	
MASP (Gas/Mud) (psi)		мах вн	P-(0.22*Setti	ng Deptn)=	4805	_	YES	OK
Pressure At Previous Shoe	Max BHP- 22*(S	etting Denth :	- Previous Sh	ne Denth)=	5044	_		Expected Pressure Be Held At Previous Shoe?
Required Casing/BOPE Tes		etting Deptin	110 / 10 43 51	oc Bepin)	5341	=	psi	Reasonable
*Max Pressure Allowed @ 1		Shoo-			5000			sumes 1psi/ft frac gradient
Max 11csaire Allowed @ 1	Trevious Casing i	5H0C=			2438		psi 713.	sumes 1931/11 frac gradient
Calculations		String					"	
Max BHP (psi)		.0	52*Setting D	epth*MW=				
							BOPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ng Depth)=			NO	
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ng Depth)=			NO	
							*Can Full	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	· ·	etting Depth	- Previous Sh	oe Depth)=	<u> </u>		NO	
Required Casing/BOPE Tes					<u> </u>		psi	
*Max Pressure Allowed @ 1	Previous Casing S	Shoe=					psi *Ass	sumes 1psi/ft frac gradient
Calculations		String					**	
Max BHP (psi)		.0	52*Setting D	epth*MW=				
							BOPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ng Depth)=			NO	
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ng Depth)=			NO	
							*Can Full	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous Sh	oe Depth)=			NO	
Required Casing/BOPE Tes	st Pressure=						psi	
*Max Pressure Allowed @ 1	Previous Casing S	Shoe=	*Max Pressure Allowed @ Previous Casing Shoe=				psi *Ass	sumes 1psi/ft frac gradient

43047522880000 Morgan State 921-36H4BS



43047522880000 Morgan State 921-36H4BS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Surface Project ID: String type:

43-047-52288

UINTAH COUNTY Location:

Design parameters: Collapse Mud weight: 8.400 ppg Design is based on evacuated pipe.		Minimum design factors: Collapse: Design factor 1.125		Environment: H2S considered? Surface temperature: Bottom hole temperature: Temperature gradient: Minimum section length: No 74 °F 109 °F 1.40 °F/100ft		
		Burst:				
		Design factor	1.00	Cement top:	1,472 ft	
Burst		•				
Max anticipated surface						
pressure:	2,236 psi					
Internal gradient:	0.120 psi/ft	<u>Tension:</u>		Directional Info - Build 8	& Drop	
Calculated BHP	2,533 psi	8 Round STC:	1.80 (J)	Kick-off point	300 ft	
	•	8 Round LTC:	1.70 (J)	Departure at shoe:	611 ft	
No backup mud specified		Buttress:	1.60 (J)	Maximum dogleg:	2 °/100ft	
		Premium:	1.50 (J)	Inclination at shoe:	20 °	
		Body yield:	1.50 (B)	Re subsequent strings:		
		, ,	1000	Next setting depth:	10,537 ft	
		Tension is based on a	air weight.	Next mud weight:	13.000 ppg	
		Neutral point:	2,253 ft	Next setting BHP:	7,116 psi	
		•		Fracture mud wt:	19.250 ppg	
				Fracture depth:	2,540 ft	
				Injection pressure:	2,540 psi	

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2580	8.625	28.00	I-55	LT&C	2483	2580	7.892	102168
Run Seq	Collapse Load (psi) 1083	Collapse Strength (psi) 1880	Collapse Design Factor 1.735	Burst Load (psi) 2533	Burst Strength (psi) 3390	Burst Design Factor 1.34	Tension Load (kips) 69.5	Tension Strength (kips) 348	Tension Design Factor 5.01 J

Helen Sadik-Macdonald Prepared Div of Oil, Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 6,2012 Salt Lake City, Utah

Collapse is based on a vertical depth of 2483 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047522880000 Morgan State 921-36H4BS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Project ID:

Production

COUNTY

43-047-52288

Location:

UINTAH

Minimum design factors:

Design parameters:	
Collapse	
Mud weight:	13 000 ppc

Design is based on evacuated pipe.

Environment:

H2S considered? No 74 °F Surface temperature: 222 °F Bottom hole temperature:

Temperature gradient: Minimum section length:

Directional Info - Build & Drop

1.40 °F/100ft

Kick-off point

Departure at shoe:

Maximum dogleg:

Inclination at shoe:

100 ft

Burst:

Design factor

Collapse:

Design factor

Cement top:

752 ft

300 ft

1100 ft

o°

2 °/100ft

Burst

Max anticipated surface pressure: Internal gradient:

Calculated BHP

No backup mud specified.

4,798 psi 0.220 psi/ft

7,116 psi

Tension:

8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) 1.60 (J) Buttress:

Premium: Body yield: 1.50 (J) 1.60 (B)

1.125

1.00

Tension is based on air weight. Neutral point: 8,662 ft

Estimated cost:

159,511 (\$)

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Cost (\$)
2	5ÒOO	4.5	11.60	HCP-110	DQX	4827	5000	3.875	132000
1	5710	4.5	11.60	HCP-110	LT&C	10537	10710	3.875	27511
Run Seq	Collapse Load	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	(psi) 3259	(psi) 8112	2.489	5859	10690	1.82	122.2	367.2	3.00 B
1	7116	8650	1.216	7116	10690	1.50	66.2	279	4.21 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

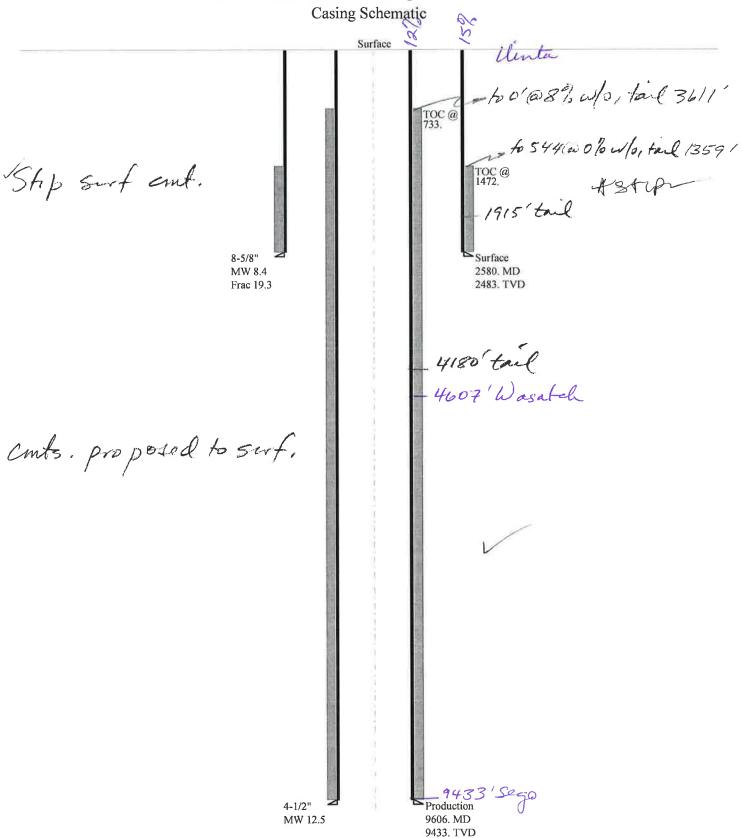
Date: March 6,2012 Salt Lake City, Utah

Collapse is based on a vertical depth of 10537 ft, a mud weight of 13 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047522880000 Morgan State 921-36H4BS



43047522880000 Morgan State 921-36H4BS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Surface Project ID: String type: 43-047-52288

UINTAH COUNTY Location:

Minimum design factors: Design parameters: **Environment:** H2S considered? Collapse Collapse: No 74 °F Design factor 1.125 Surface temperature: Mud weight: 8.400 ppg 109 °F Bottom hole temperature: Design is based on evacuated pipe. Temperature gradient: 1.40 °F/100ft Minimum section length: 100 ft **Burst:** 1.00 1,472 ft Design factor Cement top: **Burst** Max anticipated surface 2,236 psi pressure: Directional Info - Build & Drop Internal gradient: 0.120 psi/ft Tension: Calculated BHP 2,533 psi 8 Round STC: 1.80 (J) Kick-off point 300 ft Departure at shoe: 611 ft 8 Round LTC: 1.70 (J) Maximum dogleg: 2 °/100ft 1.60 (J) No backup mud specified. Buttress: 20° Premium: 1.50 (J) Inclination at shoe: 1.50 (B) Re subsequent strings: Body yield: Next setting depth: 9,433 ft Tension is based on air weight. Next mud weight: 12.500 ppg Next setting BHP: 6,125 psi Neutral point: 2,253 ft Fracture mud wt: 19.250 ppg 2,540 ft Fracture depth: Injection pressure: 2,540 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2580	8.625	28.00	I-55	LT&C	2483	2580	7.892	102168
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1083	1880	1.735	2533	3390	1.34	69.5	348	5.01 J

Prepared Helen Sadik-Macdonald Div of Oil, Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 6,2012 Salt Lake City, Utah

Collapse is based on a vertical depth of 2483 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047522880000 Morgan State 921-36H4BS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Production

Project ID:

Location:

UINTAH COUNTY 43-047-52288

Design parameters:		Minimum design	factors:	Environment:		
Collapse		Collapse:		H2S considered?	No	
Mud weight:	12.500 ppg	Design factor	1.125	Surface temperature:	74 °F	
Internal fluid density:	1.000 ppg	•		Bottom hole temperature:	206 °F	
•				Temperature gradient:	1.40 °F/100ft	
				Minimum section length:	100 ft	
		Burst:				
		Design factor	1.00	Cement top:	733 ft	
Burst		•				
Max anticipated surface						
pressure:	4,050 psi					
Internal gradient:	0.220 psi/ft	Tension:		Directional Info - Build &	Drop	
Calculated BHP	6,125 psi	8 Round STC:	1.80 (J)	Kick-off point	300 ft	

Calculated BHP

No backup mud specified.

8 Round STC: 8 Round LTC: 1.80 (J) Buttress: 1.60 (J) Premium:

Body yield:

1.50 (J) 1.60 (B)

Tension is based on air weight. Neutral point:

Kick-off point 300 ft Departure at shoe: 1100 ft Maximum dogleg: 2 °/100ft

0° Inclination at shoe:

Estimated cost:

192,799 (\$)

7,843 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	5000	4.5	11.60	I-80	DQX	4827	5000	3.875	132000
1	4606	4.5	11.60	I-80	LT&C	9433	9606	3.875	60799
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2 1	2883 5635	5900 6360	2.046 1.129	5112 6125	7780 7780	1.52 1.27	109.4 53.4	267 212	2.44 J 3.97 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining by:

Phone: 801 538-5357 FAX: 801-359-3940

Date: March 6,2012 Salt Lake City, Utah

Collapse is based on a vertical depth of 9433 ft, a mud weight of 12.5 ppg An internal gradient of .052 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of blaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

From: Jim Davis

To: APD APPROVAL

CC: Danielle Piernot; Julie Jacobson

Date: 4/2/2012 1:51 PM

Subject: Morgan State 921-36A Morgan State 921-36I pad wells

The following wells have been approved by SITLA including arch and paleo clearance.

Morgan State 921-36A4BS (4304752268) Morgan State 921-36A4CS (4304752269) Morgan State 921-36H1BS (4304752270) Morgan State 921-36H1CS (4304752271) Morgan State 921-36I1CS (4304752251) Morgan State 921-36H4BS (4304752288) Morgan State 921-36I1BS (4304752289) Morgan State 921-36I1BS (4304752290)

Thanks.

-Jim

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov Phone: (801) 538-5156

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name Morgan State 921-36H4BS

API Number 43047522880000 APD No 5076 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 NESE Sec 36 Tw 9.0S Rng 21.0E 2108 FSL 745 FEL

GPS Coord (UTM) 628632 4427855 Surface Owner

Participants

Sheila Wopsock, Charles Chase, Danielle Piernot, Doyle Holmes, (Anadarko). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). Alex Hansen (DWR). Chris Jensen and David Hackford, (DOGM).

Regional/Local Setting & Topography

This site is on an existing location, and very little new construction will be necessary.

This location is within the Natural Buttes Unit but this section is not part of the Natural Buttes Unit. It is approximately 14 road miles southeast of Ouray, Utah. The general area is at the head of a long unnamed wash east of Cottonwood Wash. Both washes enter the White River in the same general area, approximately six miles to the north. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. This unnamed wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. The washes are sometimes rimmed with steep side hills, which have exposed sandstone bedrock cliffs along the rims.

Four new directional wells will be drilled from this location which currently has one well, the Morgan State 12-36. This well has been PA'd.

Surface Use Plan

Current Surface Use

Grazing Wildlfe Habitat Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

0.04 Width 354 Length 455 Onsite UNTA

S

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues Y

Erosion could become a problem if diversion ditches aren't maintained.

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? Y

Around west side of location.

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site Ran		
Distance to Groundwater (feet)	> 200	0	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	35	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the south corner of the location. Dimensions are 260' x 100' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a layer of felt sub-liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

David Hackford **Evaluator**

1/11/2012

Date / Time

Application for Permit to Drill Statement of Basis

4/10/2012

Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
5076	43047522880000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSE	IORE, L.P.	Surface Owner-APD		
Well Name	Morgan State 921-36H4BS		Unit		
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	NESE 36 9S 21E S 210	8 FSL 745	FEL GPS Coord		
Location	(UTM) 628641E 4427856N				

Geologic Statement of Basis

Kerr McGee proposes to set 2,580' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 1,500'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 36. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill **APD Evaluator**

2/8/2012 **Date / Time**

Surface Statement of Basis

The general area is in the central portion of the Natural Buttes Unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is six miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43.6 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads.

Four wells will be directionally drilled from this location. They are the Morgan State 921-3611CS, Morgan State 921-3611BS, Morgan State 921-36H4CS and the Morgan State 921-36H4BS. The existing location currently has one well. This well is the Morgan State 12-36, and this well has been PA'd. A drainage ditch will be necessary around the west side of the location. The pad as modified should be stable and sufficient for five wells, and is the best site for a location in the immediate area.

New construction will consist of approximately 100 feet on the south, 100 feet on the west, 75 feet on the north, and 75 feet on the east side of the existing location.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Alex Hansen with DWR were invited by email to the pre-site evaluation. Both were present. Kerr McGee personnel were told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford 1/11/2012
Onsite Evaluator Date / Time

Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed

and maintained in the reserve pit.

Pits The reserve pit should be located on the south side of the location.

Surface Drainages adjacent to the proposed pad shall be diverted around the location.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/19/2011 API NO. ASSIGNED: 43047522880000

WELL NAME: Morgan State 921-36H4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NESE 36 090S 210E Permit Tech Review:

> SURFACE: 2108 FSL 0745 FEL **Engineering Review:**

> BOTTOM: 2071 FNL 0493 FEL Geology Review:

COUNTY: UINTAH

LATITUDE: 39.99109 LONGITUDE: -109.49318 UTM SURF EASTINGS: 628641.00 NORTHINGS: 4427856.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22265 PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 3 - State **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Bond: STATE/FEE - 22013542 Unit:

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Drilling Unit Oil Shale 190-13

Board Cause No: Cause 173-24 Water Permit: 43-8496

Effective Date: 10/5/2009 **RDCC Review:**

Siting: 460' Fr Exterior Lease Boundary Fee Surface Agreement

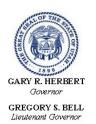
✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Morgan State 921-36H4BS

API Well Number: 43047522880000

Lease Number: ML 22265 Surface Owner: STATE Approval Date: 4/10/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-24. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-24, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Surface casing shall be cemented to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
 - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
 - Well Completion Report (Form 8) due within 30 days after completion or

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 25953 API Well Number: 43047522880000

	STATE OF UTAH		FORM 9		
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265		
SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal I n for such proposals.		7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36H4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522880000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHC h Street, Suite 600, Denver, CO, 80217 377	ONE NUMBER: '9 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2108 FSL 0745 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 6 Township: 09.0S Range: 21.0E Meridian: \$	5	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
✓ NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
5/30/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN :	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:		PLUG AND ABANDON	PLUG BACK		
		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:					
Julio di Opula:		SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON		
		VENT OR FLARE	☐ WATER DISPOSAL		
DRILLING REPORT Report Date:	☐ WATER SHUTOFF ☐ S	SI TA STATUS EXTENSION	APD EXTENSION		
	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: ACTS/ Pit Refurb		
	COMPLETED OPERATIONS. Clearly show all pe		A CONTRACT OF THE PROPERTY OF		
	Gas Onshore, LP is requesting t		Approved by the Utah Division of		
	II pad for completion operation the requirements in the COA of		Oil, Gas and Mining		
	wells on this pad, Kerr-McGee is	•	Date: May 29, 2012		
-	ACTS staging pit to be utilized		Date: Way 25, 2012		
	area. The trucks will unload wat		By: Itml Jum		
	placed into the refurbed pit. The		7		
	any hydro-carbons that may hav				
	pletion operations before releas	•			
	it open for 1 year. During this ti				
wen location comp	pletion fluids will be recycled in for other frac jobs in the surro		ank you		
	.e. saisi nas jobs in me sune	and good one. The	, 5 4.		
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst			
SIGNATURE N/A		DATE 5/22/2012			

Sundry Number: 25953 API Well Number: 43047522880000



The Utah Division of Oil, Gas, and Mining

- State of UtahDepartment of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047522880000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

RECEIVED: May. 29, 2012

SUBMIT AS EMAIL

Print Form

BLM - Vernal Field Office - Notification Form

•	rator KERR-McGEE OIL & GA			
	nitted By J. Scharnowske			929.6029
	Name/Number MORGAN ST			
•	Qtr NESE Section 36	Township §	<u>s </u>	ange <u>21E</u>
	e Serial Number ML 22265			
API	Number <u>4304752288</u>			
Spur	d Notice – Spud is the initial	snuddina d	of the we	ll not drilling
	pelow a casing string.	spadang c	i tile we	ii, not ariiing
out i	sciow a casing same.			
	Date/Time <u>07/26/2012</u>	7:00 HRS	AM 🗌	РМ
<u>Casi</u> time	ng – Please report time casi s.	ing run star	ts, not ce	ementing
\checkmark	Surface Casing			
	Intermediate Casing			
Щ	Production Casing			
	Liner			
	Other			1
	Date/Time <u>07/30/2012</u>	08:00 HRS	AM 🗌	РМ
ВОР	E	-		
	_ Initial BOPE test at surface	casing poi	nt	RECEIVED
	BOPE test at intermediate	• •		JUL 2 5 2012
	30 day BOPE test			DIV. OF OIL, GAS & MINING
	Other			,
	Date/Time		AM 🗌	РМ
Rem	arks estimated date and time. Plea	SE CONTACT KENN	Y GATHINGS	<u>AT</u>
435.82	8.0986 OR LOVEL YOUNG AT 435.781.70	51		

Sundry Number: 28304 API Well Number: 43047522880000

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	G	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265		
SUNDF	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36H4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047522880000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	PHO h Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2108 FSL 0745 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNS	QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 36 Township: 09.0S Range: 21.0E Meridian: S				
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:		CHANGE TUBING	CHANGE WELL NAME		
SUBSEQUENT REPORT		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
Date of Work Completion:		FRACTURE TREAT	☐ NEW CONSTRUCTION		
		PLUG AND ABANDON	☐ PLUG BACK		
SPUD REPORT Date of Spud:		RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION		
7/26/2012		SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON		
DRILLING REPORT		VENT OR FLARE	☐ WATER DISPOSAL		
Report Date:	☐ WATER SHUTOFF ☐	SI TA STATUS EXTENSION	APD EXTENSION		
	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
MIRU TRIPLE A BU RAN 14" 36.7# SC	COMPLETED OPERATIONS. Clearly show all periods of the period of the peri	CTOR HOLE TO 40'. CEMENT WITH 28	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 07, 2012		
Jaime Scharnowske	720 929-6304	Regulartory Analyst			
SIGNATURE N/A		DATE 8/2/2012			

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM						
KERR McGEE OIL & C	GAS ONSHORE LP	Operator Account Number: N 2995				
P.O. Box 173779						
city DENVER						
state CO	zip 80217	Phone Number: (720) 929-6304				

Wall 4

Operator: Address:

API Number	Wel	Name	QQ	Sec	Twp	Rng	County
4304752288	Morgan Si	Morgan State 921-36H4BS		36	98	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	pud Da	te		ity Assignment iffective Date
i b\	adddd	18669	7	7/26/201	2	81	20 12012

Comments: MVRD MIRU TRIPLE A BUCKET RIG. SPUD WELL LOCATION ON 7/26/2012 AT 15:00 HRS.

Well 2

API Number	Well	Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	S	pud Da	te		ity Assignment iffective Date
Comments:						<u> </u>	

Well 3

API Number	Well	Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	S	pud Da	te		ty Assignment fective Date
comments:				<u> </u>		<u> </u>	

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a percent to a comment.
 E Other (Explain in 'comments' section)

Name (Please Print)

Jain Schaumak

Signature

REGULATORY ANALYST

8/2/2012

Title

Date

AUG 0 3 2012

Sundry Number: 30507 API Well Number: 43047522880000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDF	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal l n for such proposals.	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36H4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047522880000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2108 FSL 0745 FEL	COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSI Qtr/Qtr: NESE Section: 3	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF		CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Pepths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 03, 2012
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Lindsey Frazier SIGNATURE N/A	720 929-6857	Regulatory Analyst II DATE 10/3/2012	

State of Utah - Notification Form

Operator Rig Name/# _HP 318 _Submitted By <u>BRAD</u> PEDERSEN Phone Number <u>435- 828-0988/1544</u> Well Name/Number <u>MORGAN STATE 921-36H4BS</u> Qtr/Qtr <u>NE/SE</u> Section <u>36</u> Township <u>9S</u> Range 21E Lease Serial Number <u>ML 22265</u> API Number 43047522880000
<u>Casing</u> – Time casing run starts, not cementing times.
Production Casing Other
Date/Time AM DM PM D
BOPE Initial BOPE test at surface casing point Other RECEIVED OCT 1 0 2012 DIV. OF OIL, GAS & MINING
Date/Time <u>10/10/2012</u> <u>23:00</u> AM PM
Rig Move Location To: MORGAN STATE 921-36H4BS
Date/Time <u>10/10/2012</u> <u>20:00</u> AM PM
Remarks TIME IS ESTIMATED

Sundry Number: 31239 API Well Number: 43047522880000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	RY NOTICES AND REPORTS (ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36H4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047522880000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2108 FSL 0745 FEL	COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESE Section: 3	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT			
Report Date: 10/18/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
FINISHED DRIL PRODUCTION C DETAILS OF CASING	COMPLETED OPERATIONS. Clearly show a LING TO 9,606.00' ON 10/15 CASING. RELEASED H&P 318 G AND CEMENT WILL BE INCL EPORT. WELL IS WAITING ON ACTIVITIES.	/2012. CEMENTED RIG ON 10/18/2012. UDED WITH THE WELL	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 25, 2012
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMB 720 929-6857	R TITLE Regulatory Analyst II	
SIGNATURE		DATE	
N/A		10/22/2012	

Sundry Number: 31868 API Well Number: 43047522880000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
	RY NOTICES AND REPORTS ON	_	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro- current bottom-hole depth, FOR PERMIT TO DRILL form	oposals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36H4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047522880000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2108 FSL 0745 FEL	COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESE Section: 3	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	NATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
.,,,,	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: ACTS PIT
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all pe	ertinent details including dates, d	epths, volumes, etc.
THE PIT ON THIS L	OCATION WILL BE REFURBISHE	D AND UTILIZED AS	Accepted by the
	PART OF THE ACTS SYSTEM.		Utah Division of Oil, Gas and Mining
			Date: November 27, 2012
			By: Dand Jami
			9
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE Pogulatory Applyet II	
Lindsey Frazier	720 929-6857	Regulatory Analyst II	
SIGNATURE N/A		DATE 11/8/2012	

Sundry Number: 33447 API Well Number: 43047522880000

	STATE OF UTAH			FORM 9	
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MII			5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265	
SUNDR	Y NOTICES AND REPORTS	ON WI	ELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.	y deepen contal late	existing wells below rals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: MORGAN STATE 921-36H4BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.				
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	9. FIELD and POOL or WILDCAT: 5M&TURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2108 FSL 0745 FEL	COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESE Section: 3	STATE: UTAH				
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NATU	JRE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE	ALTER	R CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHAN	GE TUBING	CHANGE WELL NAME	
	CHANGE WELL STATUS	□ сомм	IINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACT	TURE TREAT	NEW CONSTRUCTION	
	OPERATOR CHANGE	PLUG	AND ABANDON	PLUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME	RECLA	AMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDET	RACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR	VENT	OR FLARE	WATER DISPOSAL	
DRILLING REPORT Report Date:	WATER SHUTOFF	☐ SITA	STATUS EXTENSION	APD EXTENSION	
1/2/2013	WILDCAT WELL DETERMINATION	ОТНЕ	R	OTHER:	
12 DESCRIBE BRODOSED OR	COMPLETED OPERATIONS. Clearly show	v all porting	ont dotaile including dates, d	<u>'</u>	
	d completing the well. Well	-		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 03, 2013	
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMB 720 929-6857		TLE egulatory Analyst II		
SIGNATURE N/A			ATE /2/2013		

RECEIVED: Jan. 02, 2013

Sundry Number: 34379 API Well Number: 43047522880000

	STATE OF UTAH			FORM 9
ι	DEPARTMENT OF NATURAL RESOLUTION OF OIL, GAS, AND I		i	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
SUNDR	Y NOTICES AND REPORT	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significan reenter plugged wells, or to drill hou n for such proposals.			7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: MORGAN STATE 921-36H4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047522880000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2108 FSL 0745 FEL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 6 Township: 09.0S Range: 21.0E Me	eridian: S	3	STATE: UTAH
11. CHECK	K APPROPRIATE BOXES TO INDI	CATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
_	ACIDIZE		ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ F	RACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	P	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	□ R	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	□ s	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	v	ENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	□ s	SI TA STATUS EXTENSION	APD EXTENSION
2/4/2013	WILDCAT WELL DETERMINATION		OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly she discompleting the well. We			Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 13, 2013
NAME (PLEASE PRINT) Laura Abrams	PHONE NU 720 929-6356	IMBER	TITLE Regulatory Analyst II	
SIGNATURE N/A			DATE 2/4/2013	

RECEIVED: Feb. 04, 2013

Sundry Number: 34668 API Well Number: 43047522880000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI			5.LEASE DESIGNATION AND SERIAL ML 22265	NUMBER:
SUNDR	RY NOTICES AND REPORTS	S ON V	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE N	AME:
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizen n for such proposals.			7.UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: MORGAN STATE 921-36H4BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047522880000				
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	9. FIELD and POOL or WILDCAT: 5NATHERAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2108 FSL 0745 FEL	COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESE Section: 3	STATE: UTAH				
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NA	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE	Па	LTER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	☐ cı	HANGE TUBING	CHANGE WELL NAME	
	CHANGE WELL STATUS	c	OMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FF	RACTURE TREAT	NEW CONSTRUCTION	
	OPERATOR CHANGE	☐ PI	LUG AND ABANDON	PLUG BACK	
SPUD REPORT	✓ PRODUCTION START OR RESUME	☐ RI	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATIO	N
Date of Spud:	REPERFORATE CURRENT FORMATION	☐ sı	DETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR	U ve	ENT OR FLARE	WATER DISPOSAL	
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	☐ sı	I TA STATUS EXTENSION	APD EXTENSION	
2/7/2013	WILDCAT WELL DETERMINATION		THER	OTHER:	
	WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly show	-		epths, volumes, etc.	
	II was placed on production I History will be submitted v report.			Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ON February 21, 2013	1LY
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUM 720 929-6857	IBER	TITLE Regulatory Analyst II		
SIGNATURE	. 23 323 3307		DATE		
N/A			2/12/2013		

RECEIVED: Feb. 12, 2013

STATE OF UTAH

RECEIVED

AMENDED REPORT (highlight changes) FORM 8

		r			E OU					AR 12	2013		ghlight						
BIVIOLON OF OIL, GAO AND WHATHO													5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265						
WELL COMPLETION OR RECOMPLETION REPORT AND LOG													6. IF INDIAN, ALLOTTEE OR TRIBE NAME						
1a. TYPE OF WELL: OIL GAS WELL DRY OTHER													7. UNIT or CA AGREEMENT NAME						
b. TYPE OF WORK: NEW HORIZ. DEEP- RE- DIFF. WELL LATS. EN ENTRY RESVR. OTHER													8. WELL NAME and NUMBER: MORGAN STATE 921-36H4BS						
2. NAME OF OPER		0.04	0.01	10110									9. API NUMBER:						
	KERR MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: PHONE NUMBER:														4304752288				
P.O.BOX 173779 CITY DENVER STATE CO ZIP 80217 (720) 929-6000													10 FIELD AND POOL, OR WILDCAT NATURAL BUTTES						
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: NESE 2108 FSL 745 FEL S36, T9S, R21E													11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NESE 36 9S 21E S						
AT TOP PRODUCING INTERVAL REPORTED BELOW: SENE 2075 FNL 506 FEL S36,T9S,R21E												31 10	_OL-, \	00	30	ZIL C	K ga ga		
AT TOTAL DEPTH: SENE 2091 FNL 499 FEL S36,T9S,R21E													12. COUNTY 13. STATE UTA						
14. DATE SPUDDE 7/26/2012	. DATE T. 10/15/	D. REACHED: 16. DATE COMPLETED: 2/7/2013 ABANDONED							ED 🗌	P READY TO PRODUCE 7 17. ELEVATIONS (DF, 5059 RKB)									
														PEPTH BRIDGE MD PLUG SET: TVD					
22. TYPE ELECTRI	22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) 23.																		
BHP-HDIL/ZDL/CNGR-CBL/GR/CCL/TEMP WAS WELL CORED?												NO	_	YES 🗌] (Sub	mit analysis)			
WAS DST RUN? DIRECTIONAL SURVEY?													NO ✓ YES (Submit report) NO YES ✓ (Submit copy)						
24. CASING AND L	INER RECORD	(Report a	all string	s set in w	rell)					DIRECTIO	IVAL SURVET?	NO	<u></u>	YES 🟒	(Sub	ти сору)			
HOLE SIZE	SIZE/GRA	<u> </u>	WEIGHT (#/ft.)		TOP (MD)		BOTTOM (MD)			CEMENTER EPTH	CEMENT TYPE & NO. OF SACKS	SLU VOLUM		СЕМІ	ENT TOP **	AMOUN1	Γ PULLED		
20"	14"	STL	36.7#		0		40				28	<u> </u>				+			
11"	8 5/8" I	J-55	28#		0		2,711			900					0				
7 7/8"	4 1/2"	1-80	11.6#		0		9,590			2					2410				
												v.							
										****				<u> </u>					
		Želići.								,									
25. TUBING RECO	RD																		
SIZE	DEPTH S		PAC	KER SET (MD)	SIZE		DEPTH	SET (MD)) PACKE	R SET (MD)	SIZE		EPTH S	SET (MD)	PACKER S	SET (MD)		
2 3/8"	8,9	29														<u> </u>			
26. PRODUCING IN	(MD) BOTTOM (MD) TOP (TVD) E						27. PERFORATION RECORD				CIZE NO HOLEO PERFORMATION OF ATION								
(A) WASATCH		TOP (MD) 6,196			7,195		(100)	BOTTOM (TVD)		INTERVAL (Top/Bot - MD) 6,196 7,195		0.36			Open Squeezed		TUS		
(B) MESAVERDE		<u> </u>	7,454		9,490					7,454	7,195 9,490	0.36	166		pen 🗸	Squeezed	 		
(C)		· · · · ·		 	450	<u> </u>				,,,o,,	3,430	0.50	100	-	pen	Squeezed	<u> </u>		
(D)				1		<u> </u>							····	-	pen	Squeezed	片		
28. ACID, FRACTU	RE, TREATME	NT, CEME	NT SQU	EEZE, ET	c.	1		<u>.</u>							<u> </u>		<u> </u>		
DEPTH INTERVAL AMOUNT AND TYPE OF MATERIAL																			
6196-9490	PUI	MP 13	,518 B	BLS S	LICK	H2O 8	k 315.9	968 LBS	30/50 OTTA	WA SA	AND								
	10 STAGES																		
								<u> </u>			····					****			
29. ENCLOSED ATTACHMENTS:													30. WELL STATUS:						
☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVI											SURVEY	,	PROD						
SUND	RY NOTICE FO	IK PLUGG	ING ANI	O CEMEN	r VERIFICA	ATION		CORE AN	IALYSIS		OTHER:				·				

31. INITIAL PRO	DDUCTION				INT	ERVAL A (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DA			HOURS TESTED		TEST PRODUCTIO	N OIL - BBL:	GAS - MCF:	WATER - BB	L: PROD. METHOD:
2/7/2013		2/20	/2013		24		RATES: →	0	2,075	0	FLOWING
CHOKE SIZE: 20/64	TBG. PRESS 1,305			PI GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	ON OIL - BBL:	GAS - MCF: 2,075	WATER - BB	L: INTERVAL STATUS PROD
					inti	ERVAL B (As sho	wn in item #26)		•		
DATE FIRST PR	ODUCED:	TEST DA	ATE:				TEST PRODUCTIO RATES: →	N OIL – BBL:	GAS - MCF:	WATER - BB	L: PROD. METHOD:
CHOKE SIZE:	TBG. PRESS	S. CSG. PF	ESS. AF	PI GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTIO RATES: →	ON OIL - BBL:	GAS - MCF:	WATER - BB	L: INTERVAL STATUS
			· · · · ·		INT	ERVAL C (As sho	wn in item #26)			<u> </u>	 !
DATE FIRST PR	ODUCED:	TEST DA	ATE:	· · · · · · · · · · · · · · · · · · ·	HOURS TESTED		TEST PRODUCTIO RATES: →	N OIL-BBL:	GAS - MCF:	WATER – BB	L: PROD. METHOD:
CHOKE SIZE:	TBG. PRES	S. CSG, PF	ESS. AF	PI GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTIO RATES: →	ON OIL - BBL:	GAS - MCF:	WATER – BB	L: INTERVAL STATUS
	<u> </u>				INT	ERVAL D (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DA	ATE:		HOURS TESTED		· · · · · · · · · · · · · · · · · · ·		WATER BB	L: PROD. METHOD:	
CHOKE SIZE:	TBG. PRES	S. CSG. PF	ESS. AF	PI GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTIO RATES: →	ON OIL-BBL;	GAS - MCF:	WATER – BB	L: INTERVAL STATUS
32. DISPOSITION SOLD	ON OF GAS (S	old, Used for I	uel, Vente	d, Etc.)	<u>. </u>	·		<u> </u>			<u> </u>
33. SUMMARY	OF POROUS	ZONES (Includ	le Aquifers)):				34. FORMATION	(Log) MARKERS:		
Show all importa tested, cushion u	nt zones of po used, time tool	prosity and cont open, flowing a	ents thereof and shut-in p	f: Cored interva pressures and r	ils and all drill-stem recoveries.	tests, including de	epth interval				
Formatio	on	Top (MD)	Botton (MD)		Descript	tions, Contents, etc).		Name		Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 ¼" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 5025'; LTC csg was run from 5025' to 9590'. Attached is the chronological well history, perforation report & final survey.

	36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.									
NAME (PLEASE PRINT) LINDSEY FRAZIER TITLE REGULATORY ANALYST										
SIGNATURE DATE 3/5/2013										

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth

GREEN RIVER

BIRD'S NEST

MESAVERDE

MAHOGANY

WASATCH

1,453

1,758

2,256

4,802

7,445

- · drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests
- * ITEM 20: Show the number of completions if production is measured separately from two or more formations.
- ** ITEM 24: Cement Top Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

Operation Summary Report

 Well: MORGAN STATE 921-36H4BS GREEN
 Spud Date: 8/9/2012

 Project: UTAH-UINTAH
 Site: MORGAN STATE 921-36l PAD
 Rig Name No: H&P 318/318, PROPETRO 11/11

 Event: DRILLING
 Start Date: 7/19/2012
 End Date: 10/18/2012

Active Datum: RKB @5,059.00usft (above Mean Sea

UWI: NE/SE/0/9/S/21/E/36/0/0/26/PM/S/2108/E/0/745/0/0

evel) Date	n Zeesaa		re a traction	Dhere	0022	w_v.×		
•. pale		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
8/9/2012	7:00	- 9:00	2.00	MIRU	21	D D	Z	*** FORK LIFT BROKE DOWN WAITING ON
					_,	_	_	MECHANIC
	9:00	- 10:30	1.50	MIRU	01	В	P	M.S. 921-36H4BS (WELL 4 OF 4) INSTALL
								DIVERTOR HEAD AND BLUEY LINE, RIG UP NOV.
								SPOT IN RIG. SPOT IN CATWALK AND PIPE
								RACKS. RIG UP PUMP. PRIME PUMP. INSPECT RIG.
	10:00							SAFETY MEETING
		- 11:00	0.50	DRLSUR	06	Α	Р	PICK UP #1 BHA
	11:00	- 12:30	1.50	DRLSUR	02	D	Р	DRL F/44' - T/210' (166" @ 110.6' ROP) W.O.B 5-15K
								RPM 45 POWERHEAD 67 MUD MOTOR
								UP/DWN/ROT 20/20/20
								PSI ON/OFF 600/400
								M.W. 8.5# VIS 27
								397 GPM PUMP RATE / NO AIR
	12:30	- 14:00	1.50	DRLSUR	06	Α	Р	NOV-ONLINE TOOH WITH #1 BHA / TIH WITH #2 BHA
		- 15:00	1,00	DRLSUR	08	B	Ž	***REPAIR HYDRAULIC LINE ON MUD PUMP
		- 0:00	9.00	DRLSUR	02	D	P	
		5.00	0.00	DIVECTIV	02	Б	'	DRL F/210' - T/1250' (1040' @ 115.5' ROP) W.O.B. 18 - 20K
								RPM 45 POWERHEAD 67 MUD MOTOR
								UP/DWNROT 68/50/58 10K DRAG
								PSI ON/OFF 1100/850
								M.W. 8.5# VIS 27
								397 GPM PUMP RATE / NO AIR
								NOV-ONLINE
								3.5' HIGH 8' RIGHT OF LINE
8/10/2012	0:00	- 6:30	0.50	DRLSUR	ÓO	5	_	SLID 283' / 28%
0/10/2012	0.00	- 6,50	6.50	DKLSOK	02	D	P	DRL F/1250' - T/1760' (510' @ 78.5' ROP) W.O.B.
								18 - 20K RPM 45 POWERHEAÐ 67 MUD MOTOR
								UP/DWN/ROT 75/53/65 10K DRAG
								PSI ON/OFF 1320/1120
								M.W. 8.5# VIS 27
								397 GPM PUMP RATE / 2420 CFM AIR
								LOST CIRCULATION @ 1580'
	6:30	- 8:30	2.00	DRLSUR	80	В	Z	***LOST AIR BOOSTER TOOH 10 JOINTS, WAIT ON
	0.20	10.00		DD: 0				BOOSTER FROM RIG 12 TIH 10 JOINTS
	8:30	- 12:00	3.50	DRLSUR	02	D	P	DRL F/1760' - T/2060' (300' @ 85.7' ROP)
								W.O.B 18 - 20K
								RPM 45 POWERHEAD 67 MUD MOTOR UP/DWN/ROT 82/60/75 7K DRAG
								PSI ON/OFF 1350/1150
								M.W. 8.5# VIS 27
								397 GPM PUMP RATE / 2420 CFM AIR
								TORQUE ON/OFF 3000/1500
								9' HIGH 8.5' RIGHT OF LINE
								SLID 372' / 18.32%

Operation Summary Report

 Well: MORGAN STATE 921-36H4BS GREEN
 Spud Date: 8/9/2012

 Project: UTAH-UINTAH
 Site: MORGAN STATE 921-36l PAD
 Rig Name No: H&P 318/318, PROPETRO 11/11

 Event: DRILLING
 Start Date: 7/19/2012
 End Date: 10/18/2012

 Active Datum: RKB @5,059.00usft (above Mean Seal Level)
 UWI: NE/SE/0/9/S/21/E/36/0/0/26/PM/S/2108/E/0/745/0/0

Active Datum: R	KB @5,0)59.00usft (a	above Mean	Sea	UWI: NI	UWI: NE/SE/0/9/S/21/E/36/0/0/26/PM/S/2108/E/0/745/0/0					
Level)	Figure 9		Principal de la company		Tallow William	94970302	No. 2005 State Control				
Date	S	Time tart-End	Duration // (hr)	Phase	Code	Sub Code	P/Ü	MD From (usft)	Operation		
	12:00	- 22:30	10.50	DRLSUR	02	D	P		DRL F/2060' - T/2721' (661' @ 63' ROP) W.O.B 18 - 20K		
									RPM 45 POWERHEAD 67 MUD MOTOR		
									UP/DWN/ROT 92/64/76 16K DRAG		
									PSI ON/OFF 990/870		
									M.W. 8.5# VIS 27		
									397 GPM PUMP RATE / 2420 ČFM AIR		
									TORQUE ON/OFF 3000/2000 11' HIGH 4' RIGHT OF LINE		
									SLID 511' / 20,33%		
	22:30	- 0:00	1.50	DRLSUR	05	С	Р	(CIRCULATE FOR CASING		
8/11/2012	0:00	- 0:30	0.50	DRLSUR	05	Ċ	P _.	(CIRCULATE FOR CASING		
	0:30	- 5:30	5.00	DRLSUR	06	Α	Р	ı	LDDS,BHA & DIRECTIONAL TOOLS		
	5:30	- 7:00	1.50	DRLSUR	12	Α	P	N	MOVE PIPE RACKS AND CATWALK, PULL		
									DIVERTER HEAD. RIG UP TO RUN CSG. MOVE CSG		
									INTO POSITION TO P/U. LOAD TRUCKS WITH DRILL		
	7:00	- 9:30	2.50	DRLSUR	12	С	Р		PIPE FOR INSPECTION.		
		0.00	2.00	DIVEGGIV	12	Ü			TIH 60 JOINTS 8 5/8", 28#, J55 CASING SHOE IS AT 2686.7' BAFFLE IS AT 2642.2'		
	9:30	- 10:00	0.50	DRLSUR	05	Ď	Р		CIRCULATE PRIOR TO TIH WITH CSG		
	10:00	- 10:30	0.50	DRLSUR	12	В	Р		HOLD SAFETY MEETING PUMP ON CASING RUN		
									200' OF 1". RIG DOWN RIG MOVE OFF WELL, RIG		
									UP CEMENT TRUCKS, AND CEMENT HEAD.		
	10:30	- 12:00	1.50	CSGSUR	12	Е	P	·	MAKE UP HEAD AND LOAD PLUG. PRESSURE TEST		
									INES TO 2000PSI. PUMP 50BBLS AHEAD 8.4# H20.		
									PUMP 20BBLS 8.4# GEL H2O AHEAD, PUMP 300		
									SXS (61.4BBLS) 15.8# 1.15 YIELD TAIL (2% CALC,		
									1/4#/SK OF FLOCECE) DROP PLUG ON THE FLY AND DISPLACE WITH 162BBLS OF 8.4# H20. FINAL		
									LIFT PRESSURE WAS 120PSI, BUMP PRESSURE		
								\	NAS 450PSI HELD FOR 5 MINS. FLOAT HELD. NO		
								Ë	RETURNS THRU OUT JOB. PUMP 150 SK 15.8		
									(30.7BBLS) CEMENT, W/4% CALCIUM DOWN 1". NO		
	12:00	- 13:30	1.50	CSGSUR	13	Α	Р		CEMENT TO SURFACE.		
				7777		• •	•		MOC PUMP 150SXS (30.7 BBLS) CEMENT DOWN BACKSIDE. (NO CMT TO SURFACE).		
	13:30	- 14:00	0.50	CSGSUR	13	Α	Р		WOC PUMP 200SXS (41 BBLS) CEMENT DOWN		
									BACKSIDE. (NO CMT TO SURFACE).		
	14:00	- 14:00	0.00	CSGSUR	13	Α	Р	V	NOC PUMP 100SXS (20.4 BBLS) CEMENT DOWN		
. 61 166.40	Ö.00					*****			BACKSIDE. (NO CMT TO SURFACE).		
10/11/2012	0:00	- 1:00	1.00	MIRU3	01	E	P		RIG TO SKID RIG		
	1:00	- 2:00	1.00	MIRU3	01	C	P		SKID RIG		
	2:00	- 3:00 4:00	1.00	MIRU3	01	В	P		RIĞ UP		
	3:00	- 4:00	1.00	PRPSPD	14	A	P		NIPPLE UP BOPS		
	4:00	- 8:00	4.00	PRPSPD	15	Α	P		RIG UP TESTER TEST BOPS IBOP, FLOOR VAVLES,		
									MNG VAVLES ,PIPE RAMS, BLINDS, HCR, CHOKE		
									MANFOILD , KILL LINE LOW 250 PSI HIGH 5,000 PSI ANNULAR 250 LOW ,2500 PSI HIGH		
	8:00	- 10:30	2.50	PRPSPD	15	Α	Р		RIG & TESTS SWACO CHOKE MANFOILD 1,000 PSI		
									FEST 8 5/8 CASING 1500 PSI FOR 30 MINS		
	10:30	- 11:00	0.50	PRPSPD	14	Α	Р		NSTALLED WEAR BUSHING		
	11:00	- 12:00	1.00	PRPSPD	09	Α	Р	S	SLIP & CUT DRL. LINE 65'		
	12:00	- 12:30	0.50	PRPSPD	07	Α	P	F	RIGSER		

Operation Summary Report

Well: MORGAN STATE 921-36H4BS GREEN Spud Date: 8/9/2012 Project: UTAH-UINTAH Site: MORGAN STATE 921-36I PAD Rig Name No: H&P 318/318, PROPETRO 11/11 Event: DRILLING Start Date: 7/19/2012 End Date: 10/18/2012

Active Datum: Rh Level)	⟨B @5,¢	059.00usft (at	oove Mean S	ea	UWI: NE	/SE/0/9/S	5/21/E/36/0/0/26/PM/S/210	08/E/0/745/0/0
Date	S	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U MD From (usft)	Operation
		- 13:30	1.00	PRPSPD	06	Α	P	PICK UP BHA MWD TOOLS SCRIBE IN HOLE
		- 15:00	1.50	PRPSPD	06	Α	Р	TRIP IN HOLE TAGED TOP CMT @ 2547
	15:00	- 17:00	2.00	PRPSPD	02	Ē	P	DRILL SHOE TRACK
	17:00	- 0:00	7.00	DRLPRC	02	D	P	DRILL SLID F/2765 TO 3485 FT 744 ROP 106.3
								BIT WT 22 T D RPM 42 MOTOR RPM 124 PUMP PSI ON 1750 OFF 1420 SPM 60 SPM 60 GPM 540 TRQ. ON 8000 OFF 4000 SWACO - OFF LINE
								NOV - DEWATERING
10/12/2012	0:00	- 8:00	8.00	DRLPRC	02	D	P _.	SLID TIME 2 HRS. MINS 52 FT 152' DRILL SLID F/3485 TO 4336 FT 861 ROP 107.7 BIT WT 22 T D RPM 42 MOTOR RPM 124 PUMP PSI ON 1750 OFF 1420 SPM 60 SPM 60 GPM 540
								TRQ. ON 8000 OFF 4000 SWACO - OFF LINE NOV - DEWATERING
	8:00	- 9:00	1.00	DRLPRC	03	E	Z	SLIDE TIME HRS. MINS FT 1' ***WE PUT 5' SLIDE DOWN AT 4282 TO DO OUR DROP OUT & WE PUT A TURN WITH A 4.28 DOG
								LEG SO WE PULLED A STAND BACK UP TALKED TO TRAVIS & WE WORKED THE 4.2 DOG LEG OUT WITH MWD & MUD MOTORS WE GOT THE DIRECTION & ANGLE BACK WHERE WE NEEDED IT & WENT BACK TO DRILLING
	9:00	- 10:30	1.50	DRLPRC	02	D	P	DRILL SLID F/4336 TO 4567 FT 231 ROP 154 BIT WT 22 T D RPM 42 MOTOR RPM 124 PUMP PSI ON 1750 OFF 1420 SPM 60 SPM 60 GPM 540 TRQ. ON 8000 OFF 4000 SWACO - OFF LINE NOV - DEWATERING
		- 16:00	5.50	DRLPRV	02	В	P	SLIDE TIME HRS. MINS FT DRILL SLID F/ 4567 TO 5372 FT 805 ROP 146.3 BIT WT 22 T D RPM 42 MOTOR RPM 124 PUMP PSI ON 2150 OFF 1720 SPM 60 SPM 60 GPM 540 TRQ. ON 11000 OFF 8000 SWACO - OFF LINE NOV - DEWATERING SLIDE TIME1 HRS. MINS FT
		- 16:30	0.50	DRLPRV	07	Α	P	RIG SER
	16:30	- 0:00	7.50	DRLPRV	02	В		DRILL SLID F/ 5372 TO 6340 FT 968 ROP 129. BIT WT 22 T D RPM 42 MOTOR RPM 124 PUMP PSI ON 2350 OFF 1850 SPM 60 SPM 60 GPM 540 TRQ. ON 12000 OFF 10000 SWACO - OFF LINE NOV - DEWATERING SLIDE TIME 2 HRS. 50 MINS FT 56'

					Ü	S ROCK	(IES REC	SION		
				enja 16. s In 17. s T	Opera	ition S	ummar	/ Report		
Well: MORGAN	STATE 921-3	6H4BS (GREEN	eggadgaran sak-adir	A STATE OF THE STA	<u> </u>		Spud Date: 8/9/2012		
Project: UTAH-L	JINTAH			Site: MOF	RGAN ST	ATE 921-	36I PAD	Rig Name No: H&P 318/318, PROPETRO 11/11		
Event: DRILLIN	 G			Start Date	o 7/19/20	112		End Date: 10/18/2012		
Active Datum: R	KB @5 059 0	Ousft (ab	ove Mean So				1/21/E/36/0/			
Level)	(50,000.00	ouch (ub	ovo moan o	-	UWI: NE/SE/0/9/S/21/E/36/0/0/26/PM/S/2108/E/0/745/0/0					
Date	Time Start-E	计连接电影机	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)		
10/13/2012	12:00 - 1 16:00 - 1	6:30	4.00	DRLPRV	02	В	P	DRILL SLID F/ 6340 TO 7245 FT 905 ROP 75.41 BIT WT 24 T D RPM 42 MOTOR RPM 124 PUMP PSI ON 2350 OFF 1850 SPM 60 SPM 60 GPM 540 TRQ. ON 12000 OFF 10000 MUD WT.9.6 VIS 32 SWACO - OFF LINE NOV - DEWATERING SLIDE TIME HRS.2 MINS 45 FT 43' DRILL SLID F/ 7245 TO 7548 FT 303 ROP 75.75 BIT WT 24 T D RPM 42- 52 MOTOR RPM 124 PUMP PSI ON 2350 OFF 1850 SPM 60 SPM 60 GPM 540 TRQ. ON 12000 OFF 10000 MUD WT.9.6 VIS 32 SWACO - OFF LINE NOV - DEWATERING SLIDE TIME HRS.0 MINS 0 FT 0 P/U 230K S/O 122K R/T 162K RIG SER		
	16:30 - (0:00	7.50	DRLPRV	02	B	P	DRILL SLID F/ 7548 TO 7980 FT 432 ROP 57.6 BIT WT 24 T D RPM 42- 52 MOTOR RPM 124 PUMP PSI ON 2150 OFF 1850 SPM 60 SPM 60 GPM 540		

NOV - DEWATERING SLIDETIME HRS. MINS FT 0:00 - 9:30 10/14/2012 9.50 DRLPRV В Р 02 DRILL SLID F/ 7980 TO 8584 FT 604 ROP 63.5 BIT WT 24 T D RPM 42- 52 MOTOR RPM 124 PUMP PSI ON 2150 OFF 1850

> 0.50 DRLPRV 07 Α Р 9.00 DRLPRV 02

19:00 - 20:00 1.00 DRLPRV 05 Z 20:00 - 0:00

DRLPRV

DŘLPRV

06

06

Α

Z

Z

4.00

3.00

TRQ. ON 14,000 OFF 10,000 MUD WT.9.6 VIS 33 SWACO - OFF LINE NOV - DEWATERING ***DRILL PIPE PRESSURED UP HAD 1700 PSI W/ 39 SPM PUMP & DISPLACED 80 BBLS 11.5 MUD ON **BOTTOM OF HOLE** *** TOH FOR PLUGED JETS

DRILL SLID F/ 8584 TO 9116 F 532 ROP 59.1 BIT WT 24-26K T D RPM 42-52 MOTOR RPM 124

TRQ. ON 14000 OFF 10000 MUD WT.9.6 VIS 33 SWACO - OFF LINE

SPM 60 SPM 60 GPM 540 TRQ. ON 14,000 OFF 10,000 MUD WT.9.6 VIS 33 SWACO - OFF LINE NOV - DEWATERING

RIG SER.

SLIDE TIME HRS 3 MINS 0 FT 50'

PUMP PSI ON 2150 OFF 1850 SPM 60 SPM 60 GPM 540

*** TRIP OUT HOLE WELL FLOWING @ 2,000' BALOONING TALKED TO LOVEL SPOTED 50 BBLS 11.2 MUD @ 2000' TOH

10/15/2012

0:00 - 3:00

9:30 - 10:00

10:00 - 19:00

Operation Summary Report

 Well: MORGAN STATE 921-36H4BS GREEN
 Spud Date: 8/9/2012

 Project: UTAH-UINTAH
 Site: MORGAN STATE 921-36I PAD
 Rig Name No: H&P 318/318, PROPETRO 11/11

 Event: DRILLING
 Start Date: 7/19/2012
 End Date: 10/18/2012

Active Datum: RKB @5,059.00usft (above Mean Sea UWI: NE/SE/0/9/S/21/E/36/0/0/26/PM/S/2108/E/0/745/0/0

Level))							10/0/0/20/1 W/\0/2/0	72.0743.070		
Date		Time	Duration	Phase	Code	Sub	P/U	MD From	Operation		
<u> </u>	3:00	tart-End - 4:30	(hr) 1.50	DRLPRV	06	Code A		(usft)	1997 1997		
	0.00	4.30	1.50	DRLPRV	Ue	Α	Z		***L/D MWD TOOLS, MUD MOTOR 4 OUT 6 JETS PLUGED W/ STAITER RUBBER P/U MM, BIT MWD TOOLS		
	4:30	- 15:00	10.50	DRLPRV	06	Α	Z		***TRIP IN HOLE W/ NEW BIT , MUD MOTOR ACTED LIKE WE WERE PUSHING A BALL DOWN HOLE		
	15:00	: 40.00	4.56			_			FROM 5759 TO TD SHAKER WEAR LOAD UP WITH CUTING 3" DEEPSHALE GRAY & BLACK		
	13.00	- 16:30	1.50	DRLPRV	Ö2	В	Р		DRILL F/ 9116 TO 9242 FT 126 ROP 84 BIT WT 20 -24 K RPM 45 TD MM 124		
									PUMP ON/OFF 2860 / 1850 SPM 120 GPM 540		
									MW. 10.4 VIS 40 TRQ ON/ OFF 15K / 10 K SWACO - OFF LINE		
	16:30	- 17:00	0.50	DRLPRV	05	Α	x		NOV - OFF LINE PICKED UP OFF BOTTOM SLOWED PUMP DOWN WAS LOSING CIRCULATION BUILT LCM 6% IN MAIN		
									MUD TANKS		
	17:00	- 23:00	6.00	DRLPRV	02	B	P		DRILL F/ 9242 TO 9606 FT364 ROP60.6 BIT WT 20 -24 K RPM 45 TD MM 89 PUMP ON/OFF 1780 / 1450		
									SPM 80 GPM 360 MW. 12.1 VIS 40 TRQ ON/ OFF 15K / 10 K SWACO - OFF LINE		
									NOV - OFF LINE		
		0.00	1.00	DRLPRV	05	С	P		CIRC COND FOR SHORT TRIP #1 FOR LOGS		
10/16/2012	0:00	- 1:30	1.50	DRLPRV	05	В	Р		CIRC COND FOR SHORT TRIP FOR LOGS		
	1:30 8:00	- 8:00	6.50	DRLPRV	06	E	P		TOH FOR WIPER TRIP FOR LOGS(TIGHT SPOT @ 5745 TO 5730 15' WORKED TIGHT SOPT		
		- 10:00 - 10:30	2.00	DRLPRV	06	E	P		L/D MWD TOOLS , MONEL DCS, SUBS		
		- 10:30 - 15:30	0.50	DRLPRV	07	Α	P		RIG SER.		
		- 15:30 - 17:00	5.00	DRLPRV	06	E	P		P/U TRI CONE BIT PUMPED THROUGH BIT TIH		
		- 17:00	1.50	DRLPRV	05	A	P		CIRC COND FOR LOGS		
			5.50	DRLPRV	06	E	P		TRIP OUT FOR LOGS		
40/47/0040	0:00	0.00	1.50	DRLPRV	11	D	P		RIG UP & LOG WELL		
10/17/2012		- 4:30	4,50	DRLPRV	11	D	P		RUN WIRE LINE LOGS LOGGERS TD 9595 DRILLER 9606		
	4:30	- 6:00	1.50	DRLPRV	06	Α .	P		P/U BIT TIH TO LAY DOWN 4.5 DP BREAK CIRC BIT PLUGED		
	6:00	- 9:00	3.00	DRLPRV	06	Α	Z		***TOH FOR PLUGED JETS BIT SUB FULL OF LCM WET		
	9:00	- 9:30	0.50	DRLPRV	06	Α	Z		***UNPLUGED BIT SUB, BIT		
	9:30	- 14:00	4.50	DRLPRV	06	A	P		TIH		
	14:00 14:00	- 14:00	0.00	DRLPRV	05	C	P		CIRC COND MUD TO LAY DOWN 4.5 DRILL PIPE		
		- 16:00	2.00	DRLPRV	05	C	P		CIRC OUT GAS AFTER LOG TRIP		
40400046	16:00	- 0:00	8.00	DRLPRV	06	A	P _		LAY DOWN 4.5 DRILL PIPE		
10/18/2012	0:00 2:00	- 2:00	2.00	DRLPRV	06	A	P		L/D 4.5 DRILL PIPE		
		- 2:30	0.50	CSGPRO	06	A	P		PULLED WEAR BUSHING		
	2:30	- 3:00	0.50	CSGPRO	12	A	P		RIG CASING CREW H S/M		
·	3:00	- 10:00	7.00	CSGPRO	12	С	P		RUN CASING 218 JTS 4.5 # 11.6 I-80 SHOE 9590, FC @ 9546 MARKER JTS 7436		

Well: MORGAN	STATE 921-36H4BS	GREEN					Spud Date: 8/9/2012		
Project: UTAH-UINTAH Site: MO Event: DRILLING Start Dat					ATE 921	1-36I PAD	Rig Name No: H&P 318/318, PROPETRO 11/11		
					 012		End Date: 10/18/2012		
Active Datum: RKB @5,059.00usft (above Mean Sea Level)				UWI: NE/SE/0/9/S/21/E/36/0/0/26/PM/S/2108/E/0/745/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub	P/U	MD From Operation (usft)		
	10:00 - 11:30	1.50	CSGPRO	05	D	Р	CIRC OUT GAS		
	11:30 - 15:00 15:00 - 15:30	3,50	CSGPRO	12	Ē		R/U CMT CREWS H S/M LEAD 12.5 YIELD 1.98 595 SX CMT LEAD CMT 14.3 YIELD 1.33 1440 SX CMT DISPLAC W/ 148 BBL BUMPED PLUG W/ 3354 PSI FLOAT HELD CMT RETRUNED TO SURFACE 0 LIFT PSI 2500 SHUT DOWN TO DROP PLUG WASH UP LOST CIRCULATION 148 BBLS CALCULATED TOP OF CEMENT 3988		
	10.00	0.50	CSGPRO	12	В	Р	BACK FLUSH BOPS		
	15:30 - 16:30	1.00	CSGPRO	14	Α	P	SET PACK OFF		
	16:30 - 18:00	1.50	CSGPRO	14	Α	Р	NIPPLE DOWN BORS OF EAN PITS RIG RELEASED		

@ 18:00 ON 10/18/2012

1 General

1.1 Customer Information

Company	US ROCKIES REGION	
Representative		
Address		

1.2 Well/Wellbore Information

Well	MORGAN STATE 921-36H4BS GREEN	Wellbore No.	ОН
Well Name	MORGAN STATE 921-36H4BS	Wellbore Name	MORGAN STATE 921-36H4BS
Report No.	1	Report Date	12/5/2012
Project	UTAH-UINTAH	Site	MORGAN STATE 921-36I PAD
Rig Name/No.		Event	COMPLETION
Start Date	12/5/2012	End Date	2/7/2013
Spud Date	8/9/2012	Active Datum	RKB @5,059.00usft (above Mean Sea Level)
UWI	NE/SE/0/9/S/21/E/36/0/0/26/PM/S/2108/E/0/745/0/0		

1.3 General

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

1.4 Initial Conditions

Fluid Type		Fluid Density	Gross interval
Surface Press		Estimate Res Press	No. of intervals
TVD Fluid Top		Fluid Head	Total Shots
Hydrostatic Press		Press Difference	Avg Shot Dens
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	6,196.0 (usft)-9,490.0 (usft	Start Date/Time	1/21/2013 12:00AM
No. of intervals	69	End Date/Time	1/21/2013 12:00AM
Total Shots	238	Net Perforation interval	74.00 (usft)
Avg Shot Density	3.22 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date Formation/ CCL@	CCL-T	MD Top	MD Base	Shot	Misfires/i Diamete Carr	Type /Stage No Carr	Phasing	Charge Desc /Charge Charge Reason M	/lisrun
Reservoir, (usft),	S (usft)	(usft)	The poor of	Density (shot/ft)	Add. Shot (in)	Size (in)	(°)	Manufacturer Weight (gram)	
1/21/2013 WASATCH/		6,196.0	6,197.0	3.00	0.360 EXP/	3.375	120.00		<u>/</u>
12:00AM						and the second s	Average of the second	N	

Date	Formation/ Reservoir	CCL@ (usft)	 A simple specifical support 	Top I	MD Base (usft)	Shot Density (shot/ft)	Misfires/i Add, Shot	Diamete r (in)	Carr Type /Stage No	Carr Size	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
1/21/2013 12:00AM	WASATCH/	A STATE OF THE STA		210.0	6,211.0	3.00		0.360	EXP/	3.375	120.00	<u>an tanggan nakalaka lingga (48 Bér)</u> ma		PRODUCTIO N	Jedr. 19 Sir. (Se
1/21/2013 12:00AM	WASATCH/	***************************************	6,	248.0	6,249.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	- Control of the Cont
1/21/2013 12:00AM	WASATCH/		6,	307.0	6,308.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		6,	328.0	6,329.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	6,	500.0	6,501.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/	THE PARTY OF THE P	6,	515.0	6,516.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	100000000000000000000000000000000000000
1/21/2013 12:00AM	WASATCH/	(M. and M. Bernell, Market M. B. Berlel, M. J. S. Berlel, M. J. S. Berlevelle, M. S.	6,	580.0	6,581.0	3.00	700000000000000000000000000000000000000	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/	000 a 1000 a	6,1	602.0	6,603.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		6,0	672.0	6,673.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		6,7	733.0	6,734.0	3.00	TO A STATE OF THE	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	1111 Tarana da 1111 T
1/21/2013 12:00AM	WASATCH/		6,7	745.0	6,746.0	3.00	7777	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	PROPERTY OF A SECOND CONTRACTOR
1/21/2013 12:00AM	WASATCH/		6,7	769.0	6,770.0	3.00	or one control of the	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		6,7	795.0	6,796.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		6,8	861.0	6,861.0	2.00	ост ч.о. шиностолого па	0.360	EXP/	3.375	180.00	Y	23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		6,8	886.0	6,887.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		6,9	926.0	6,927.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	*
1/21/2013 12:00AM	WASATCH/		6,9	978.0	6,979.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	i
1/21/2013 12:00AM	WASATCH/		6,9	97.0	6,998.0	4.00		0.360	EXP/	3.375	90.00		Į.	PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		7,0	047.0	7,048.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
1/21/2013 12:00AM	WASATCH/		7,1	194.0	7,195.0	4.00		0.360	EXP/	3.375	90.00		ì	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/		7,4	154.0	7,455.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-Ti S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No.	Carr Size (in)	Phasing ()	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
1/21/2013 12:00AM	MESAVERDE/			7,470.0	7,471.0		and the state of t	0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
1/21/2013 12:00AM	MESAVERDE/			7,511.0	7,512.0	4.00	Date of the control o	0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,526.0	7,527.0	4.00		0.360	EXP/	3.375	90.00	4	1	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/	-		7,571.0	7,572.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,592.0	7,593.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,626.0	7,627.0	3.00	To company to the com	0.360	EXP/	3.375	120.00	A CALLED	23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,640.0	7,641.0	3.00		0.360	EXP/	3.375	120.00	77 1003 247 257	23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,652.0	7,653.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,788.0	7,789.0	3.00		0.360	EXP/	3.375	120.00		1	PRODUCTIO N	
	MESAVERDE/			7,799.0	7,800.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,809.0	7,810.0	3.00	and the same of th	0.360	EXP/	3,375	120.00)	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,841.0	7,842.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,850.0	7,851.0	3.00	A Commission of the Commission	0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			7,937.0	7,938.0	3.00	To Visible and	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/	The state of the s		7,968.0	7,969.0	3.00	Anna Anna Anna Anna Anna Anna Anna Anna	0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,027.0	8,029.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/	The state of the s	THE CONTRACT OF THE CONTRACT O	8,121.0	8,122.0	3.00		0.360	EXP/	3.375	120.00		- 1	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,145.0	8,146.0	3.00		0.360	EXP/	3,375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/	William I de Constitution de C		8,168.0	8,169.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,216.0	8,217.0	3.00	0.000	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,294.0	8,295.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	- 00 1 1 00

Date	Formation/ Reservoir	CCL@ (usft)	CCL-Ti	MD Top (usft)	MD Base (usft)	Shot' Density (shot/ft)	Misfires/ Add, Shot	Diamete ri (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
1/21/2013 12:00AM	MESAVERDE/		.,,	8,318.0	8,319.0		- 210-17-4048		EXP/	3.375	120.00	<u> </u>		PRODUCTIO N	3.35 (8.50 (8
1/21/2013 12:00AM	MESAVERDE/			8,361.0	8,362.0	3.00		0.360	EXP/	3.375	120.00	7,000,000	23,00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,371.0	8,372.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,417.0	8,418.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,506.0	8,507.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,545.0	8,546.0	3.00	-	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,581.0	8,582.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,674.0	8,675.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/	a a ma a life a decision control is belong the P ma P		8,710.0	8,711.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,752.0	8,753.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,788.0	8,789.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/	And and the second seco		8,816.0	8,817.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,832.0	8,833.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,871.0	8,872.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/	and the state of t		8,906.0	8,907.0	3.00		0.360	EXP/	3.375	120.00	,,,,,	23.00	PRODUCTIO N	On a second seco
1/21/2013 12:00AM	MESAVERDE/			8,951.0	8,952.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/		THE PROPERTY OF THE PROPERTY O	8,972.0	8,973.0	3.00	and the second	0.360	EXP/	3.375	120.00	2	23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			8,989.0	8,990.0	3.00		0.360	EXP/	3.375	120.00	THE PROPERTY OF THE PROPERTY O		PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			9,032.0	9,033.0	3.00	100 Mar 201	0.360	EXP/	3.375	120.00		í	PRODUCTIO N	
	MESAVERDE/		Transmitter of the control of the co	9,098.0	9,099.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/	a service and a		9,116.0	9,117.0	3.00		0.360	EXP/	3.375	120.00		1	PRODUCTIO N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
1/21/2013 12:00AM	MESAVERDE/			9,134.0	9,135.0	3.00		0.360	EXP/	3.375	120,00			PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			9,175.0	9,176.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			9,296.0	9,298.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			9,332.0	9,334.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			9,419.0	9,421.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/21/2013 12:00AM	MESAVERDE/			9,488.0	9,490.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



Operation Summary Report

Well: MORGAN	STATE 9	21-36H4BS	GREEN		Spud Date: 8/9/2012							
Project: UTAH-I	UINTAH			Site: MOF	RGAN ST	ATE 921	-36I PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3				
Event: COMPLI	ETION			Start Date	: 12/5/20)12		End Date: 2/7/2013				
Active Datum: F Level)	RKB @5,0	59.00usft (a	bove Mean S	ea	UWI: N	E/SE/0/9/	S/21/E/36/0/0/26/PM/	/S/2108/E/0/745/0/0				
Date	A Comment	Time art-End	Duration (hr)	: Phase	Code	Sub Code	P/U MD Fro					
8/9/2012		-		· · · · · · · · · · · · · · · · · · ·			<u> </u>					
12/5/2012	10:45	- 11:00	0.25	FRAC	33	С	P	RU HOT OILER, FILL SURFACE WITH 4 BBLS H2O PRESSURED TO 900 PSI, BROKE BACK TO 800 PSI PUMPED 10 BBLS @ 1 TO 1.5 BPM 900 PSI, ISIP 750 BLED WELL DOWN, MOVED TO NEXT WELL				
12/10/2012	7:00	- 10:00	3.00	SUBSPR	51	В	Р	RU SCHLUMBERGER: PRESSURED 8 5/8 X 4 1/2" ANNULAR TO 1500 PSI WELL WOULD LOSE 350 TO 800 PSI KEPT BUMPING PRESSURE TO 1500, PSI, SURGED WELL. WELL WOULDN'T ALLOW US TO CEMENT SURFACE CSG. RD SCHLUMBERGER LEFT SURFACE OPEN				
12/11/2012 1/15/2013	10:00	- - 11:00	1.00	FRAC ·	33	С	Р	FILL SURFACE CSG. MIRU CAMERON QUICK TEST. 1ST PSI TEST T/7000 PSI. HELD FOR 15 MIN LOST 21 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG				
1/21/2013	8:00	- 13:00	5.00	SUBSPR	37	В	Р	BLEED OFF PSI. MOVE T/ NEXT WELL.SWIFN HSM, EQUALIZING WELL, MIRU CASED HOLE SOLUTONS, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE.				

2/27/2013 4:48:54PM

Well: MORGAN	STATE 9	21-36H4BS	GREEN			Spud Date: 8/9/2012								
Project: UTAH-U	INTAH			Site: MC	RGAN ST	TATE 921	1-36I PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE						
Event: COMPLE	TION			Start Da	te: 12/5/20	012		End Date: 2/7/2013						
Active Datum: R	KB @5,0	59.00usft (a	bove Mean S	Sea	UWI: N	UWI: NE/SE/0/9/S/21/E/36/0/0/26/PM/S/2108/E/0/745/0/0								
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usit)						
1/22/2013	7:00	- 17:00	10.00	FRAC	36	B B	P	PERF & FRAC FOLLOWING WELL AS PER DESIGN						
								W/ 30/50 MESH SAND & SLK WTR.						
								ALL CBP'S ARE HALIBURTON 8K CBP'S.						
								REFER TO STIM PJR FOR FLUID, SAND AND						
								CHEMICL VOLUME PUM'D						
								ONE WICE VOLUME FORM B						
								FRAC STG #1] WHP=1,169#, BRK DN						
								PERFS=3,093#, @=4.8 BPM, INJ RT=48.5, INJ						
								PSI=5,017#, INITIAL ISIP=2,010#, INITIAL FG=.65.						
								FINAL ISIP=2,824#, FINAL FG=.74, AVERAGE						
								RATE=49.3, AVERAGE PRESSURE=4,992#, MAX						
								RATE=49.9, MAX PRESSURE=6,035#, NET						
								PRESSURE INCREASE=814#, 20/24 83% CALC						
								PERFS OPEN. X OVER TO WIRE LINE						
								TENTO OF EN. A OVER TO VAINE LINE						
								PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP &						
								PERF GUN, SET CBP @=9,206', PERF MESAVERDE						
								USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS						
								PERSAY IN PROCEDURE, X OVER TO FRAC CREV						
								PERSAT IN PROCEDURE, A OVER TO FRAC CREV						
								FRAC STG #2] WHP=898#, BRK DN PERFS=3,934#,						
								@=5.1 BPM, INJ RT=49.3, INJ PSI=4,932#, INITIAL						
								ISIP=2,475#, INITIAL FG=.71, FINAL ISIP=2,785#,						
								great to the state of the state						
								FINAL FG=.75, AVERAGE RATE=49.3, AVERAGE						
								PRESSURE=49.3#, MAX RATE=50.3, MAX						
								PRESSURE=5,971#, NET PRESSURE						
								INCREASE=310#, 24/24 100% CALC PERFS OPEN.						
								X OVER TO WIRE LINE						
								DEDE CTO #91 B/L DIFTAMENT DUDTON 612 000 0						
								PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP &						
								PERF GUN, SET CBP @=8,937', PERF MESAVERDE						
								USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE, AS						
								PERSAY IN PROCEDURE, X OVER TO FRAC CREV						

2/27/2013

Well: MORGAN	STATE 9	921-36H4BS (GREEN					Spud Date: 8/9/2	2012			
Project: UTAH-U	IINTAH			Site: MOF	RGAN S	TATE 921-	36I PAD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3			
vent: COMPLE	TION	,	***	Start Date	12/5/2	012			End Date: 2/7/2013			
Active Datum: R	KB @5.0	059.00usft (ab	ove Mean Se		_		S/21/E/36/	0/0/26/PM/S/2108				
_evel)	O -,	(-								
Date	e e	Time tart-End	Duration	Phase 📆	Code	Sub	P/U	MD From	Operation			
1/23/2013	7:00	- 17:30	10.50	FRAC	36	Code	P	(usft)	EDAC CTC #01 M410-4 074# DDV 5N			
			10.00	,,,,,		Б	1		FRAC STG #3] WHP=1,274#, BRK DN PERFS=2,391#, @=4.1 BPM, INJ RT=49.7, INJ			
									PSI=4,234#, INITIAL ISIP=2,109#, INITIAL FG=.68,			
									FINAL ISIP=2,581#, FINAL FG=.73, AVERAGE			
									RATE=49.5, AVERAGE PRESSURE=4,373#, MAX			
									RATE=50.2, MAX PRESSURE=6,148#, NET			
									PRESSURE INCREASE=472#, 24/24 100% CALC			
									PERFS OPEN. X OVER TO WIRE LINE			
									PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP &			
									PERF GUN, SET CBP @=8,612', PERF MESAVERDE			
									USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE, AS			
									PERSAY IN PROCEDURE, X OVER TO FRAC CREW			
									FRAC STG #4] WHP=624#, BRK DN PERFS=2,764#,			
									@=4.7 BPM, INJ RT=49.8, INJ PSI=5,491#, INITIAL			
									ISIP=1,230#, INITIAL FG=.58, FINAL ISIP=2,693#.			
									FINAL FG=.76, AVERAGE RATE=49.6, AVERAGE			
									PRESSURE=5,084#, MAX RATE=50.6, MAX			
									PRESSURE=6,773#, NET PRESSURE			
									INCREASE=1,463#, 15/24 63% CALC PERFS OPEN.			
									X OVER TO WIRE LINE			
									12 - 22 - 23 - 24 - 24 - 24 - 24 - 24 - 2			
									PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP &			
									PERF GUN, SET CBP @=8,247', PERF MESAVERDE			
									USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS			
									PERSAY IN PROCEDURE, X OVER TO FRAC CREW			
									FRAC STG #5] WHP=1,493#, BRK DN			
									PERFS=2,784#, @=4.7 BPM, INJ RT=47.4, INJ			
									PSI=5,802#, INITIAL ISIP=2,213#, INITIAL FG=.71,			
									FINAL ISIP=2,548#, FINAL FG=.75, AVERAGE			
									RATE=49.5, AVERAGE PRESSURE=4,816#, MAX			
									RATE=50.3, MAX PRESSURE=6,766#, NET			
									PRESSURE INCREASE=335#, 16/24 67% CALC			
									PERFS OPEN. X OVER TO WIRE LINE			
									PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP &			
									PERF GUN, SET CBP @=7,881', PERF MESAVERDE			
									USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS			
									PERSAY IN PROCEDURE, X OVER TO FRAC CREW			
									FRAC STG #6] WHP=749#, BRK DN PERFS=2,517#.			
									@=5 BPM, INJ RT=49.9, INJ PSI=4,515#, INITIAL			
									ISIP=1,362#, INITIAL FG=.64, FINAL ISIP=2,089#,			
				2					FINAL FG=.71, AVERAGE RATE=49.6, AVERAGE			
									PRESSURE=4,159#, MAX RATE=50.6, MAX			
									PRESSURE=5,715#, NET PRESSURE			
									INCREASE=727#, 19/24 79% CALC PERFS OPEN. X			
									OVER TO WIRE LINE			
									SWIFN			
1/24/2013	7:00	- 7:15	0.25	FRAC	48		Р		HSM, WORKING AROUND WIRE LINE			

2/27/2013 4:48:54PM

Operation Summary Report

Well: MORGAN STATE 921-36H4BS GREEN	Spud Da	ate: 8/9/2012
Project: UTAH-UINTAH	Site: MORGAN STATE 921-36I PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Date: 12/5/2012	End Date: 2/7/2013
Active Datum: RKB @5,059.00usft (above Mea Level)	an Sea UWI: NE/SE/0/9/S/21/E/36/0/0/26/PN	M/S/2108/E/0/745/0/0
Date Time Duratic	on Phase Code Sub P/U MD F	
7:15 - 14:30 7.25	FRAC 36 B P	PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,613', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
		FRAC STG #7] WHP=788#, BRK DN PERFS=1,383#,
		@=5.4 BPM, INJ RT=53.2, INJ PSI=4,209#, INITIAL ISIP=952#, INITIAL FG=.57, FINAL ISIP=2,240#,
		FINAL FG=.74, AVERAGE RATE=52.3, AVERAGE PRESSURE=4,253#, MAX RATE=53.5, MAX PRESSURE=4,852#, NET PRESSURE
		INCREASE=1,288#, 20/24 83% CALC PERFS OPEN. X OVER TO WIRE LINE
		PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,225', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
		FRAC STG #8] WHP=356#, BRK DN PERFS=1,744#,
		@=5.1 BPM, INJ RT=49.6, INJ PSI=3,959#, INITIAL ISIP=1,281#, INITIAL FG=.62, FINAL ISIP=2,000#, FINAL FG=.72, AVERAGE RATE=50.8, AVERAGE PRESSURE=3,889#, MAX RATE=52.1, MAX
		PRESSURE=4,797#, NET PRESSURE INCREASE=719#, 20/24 83% CALC PERFS OPEN. X OVER TO WIRE LINE
		PERF STG #9] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,875', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
		FRAC STG #9] WHP=779#, BRK DN PERFS=2,221#, @=5.1 BPM, INJ RT=51.7, INJ PSI=3,878#, INITIAL ISIP=1,757#, INITIAL FG=.62, FINAL ISIP=19,24#, FINAL FG=.72, AVERAGE RATE=49.7, AVERAGE
		PRESSURE=3,373#, MAX RATE=52.1, MAX PRESSURE=4,443#, NET PRESSURE INCREASE=167#, 22/22 100% CALC PERFS OPEN. X OVER TO WIRE LINE
		PERF STG #10] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,546', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
		FRAC STG #10] WHP=553#, BRK DN PERFS=1,751#, @=5.1 BPM, INJ RT=50.5, INJ PSI=2,723#, INITIAL ISIP=1,038#, INITIAL FG=.60, FINAL ISIP=1,253#, FINAL FG=.64, AVERAGE RATE=49.6, AVERAGE PRESSURE=3,389#, MAX RATE=50.6, MAX PRESSURE=3,998#, NET PRESSURE INCREASE=215#, 24/24 100% CALC PERFS OPEN.

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					Opera	ition S	Summary R	eport
Well: MORGAN	STATE	921-36H4BS	GREEN		. 100 0 0 0 0 0		Spuc	Date: 8/9/2012
Project: UTAH-	ject: UTAH-UINTAH Site: N					TATE 921	-36I PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPL						012		End Date: 2/7/2013
Active Datum: F Level)	RKB @5,0	059.00usft (al	bove Mean S	Sea	UWI: N	E/SE/0/9	/S/21/E/36/0/0/26	/PM/S/2108/E/0/745/0/0
Date	CA 73 CO. 5	Time tart-End	Duration (hr)	Phase	Code	Sub Code		O From Operation (usft)
								P/U RIH W/ HALIBURTON 8K ČBP, SET FÖR TOP KILL @=6,146
2/6/2013	7:00	- 7:15	. 0.05	DDI OUT	40		_	TOTAL FLUID PUMP'D=13,518 BBLS TOTAL SAND PUMP'D=315,968#
2/0/2013	7:15		0.25	DRLOUT	48		P	HSM-JSA
	. 2	- 15:00	7,75	DRLOUT	31	ı	P	RDMO MORGAN STATE 921-36H4CS, MIRU, NDWH, NUBOP, PU 3 7/8" BIT 7 POBS W/ XN SN, RIH W/ 194 JTS 2 3/8" L-80 TAG FILL @ 6,126', RU PWR SWWL, SWI, SDFN
2/7/2013	7:00	- 7:15	0.25	DRLOUT	48		Р	HSM-JSA

2/27/2013

4:48:54PM

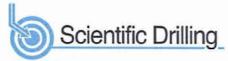
Operation Summary Report

Well: MORGAN STATE 921-36H4BS GREEN			Spud D	Pate: 8/9/2012
Project: UTAH-UINTAH	Site: MO	RGAN STATE 921-36	I PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		te: 12/5/2012		End Date: 2/7/2013
Active Datum: RKB @5,059.00usft (above Me Level)	an Sea	UWI: NE/SE/0/9/S/2	1/E/36/0/0/26/P	M/S/2108/E/0/745/0/0
Date Time Durat Start-End (hr)	entro de salicidad en derendado como sede	Code Sub Code	500 - 4 - 5 - 1 TELL & Cally 1	From Operation
7:15 - 16:00 8.79	5 DRLOUT	44 C	P	BRK CIRC, PRESS TEST BOP TO 3,000 PSI, LOST 0 PSI IN 15 MIN.
				C/O 20' SAND TAG PLUG #1 @ 6,146', DRL HAL 8K CBP IN 7 MIN, 0 PSI INC, FCP 0 PSI, RIH TAG FILL @ 6,521'.
				C/O 25' SAND TAG PLUG #2 @ 6,546', DRL HAL 8K CBP IN 6 MIN, 150 PSI INC, FCP 25 PSI, RIH TAG FILL @ 6,850'.
				C/O 25' SAND TAG PLUG #3 @ 6,875', DRL HAL 8K CBP IN 7 MIN, 50 PSI INC, FCP 25 PSI, RIH TAG FILL @ 7,199'.
				C/O 26' SAND TAG PLUG #4 $@$ 7,225', DRL HAL 8K CBP IN 7 MIN, 200 PSI INC, FCP 100 PSI, RIH TAG FILL $@$ 7,593'.
				C/O 20' SAND TAG PLUG #5 @ 7,613', DRL HAL 8K CBP IN 8 MIN, 50 PSI INC, FCP 100 PSI, RIH TAG FILL @ 7,851'.
				C/O 30' SAND TAG PLUG #6 @ 7,881', DRL HAL 8K CBP IN 5 MIN, 450 PSI INC, FCP 200 PSI, RIH TAG FILL @ 8,217'.
				C/O 30' SAND TAG PLUG #7 @ 8,247', DRL HAL 8K CBP IN 5 MIN, 350 PSI INC, FCP 250 PSI, RIH TAG FILL @ 8,567'.
				C/O 45' SAND TAG PLUG #8 @ 8,612', DRL HAL 8K CBP IN 6 MIN, 300 PSI INC, FCP 350 PSI, RIH TAG FILL @ 8,877'.
				C/O 60' SAND TAG PLUG #9 @ 8,937', DRL HAL 8K CBP IN 7 MIN, 200 PSI INC, FCP 400 PSI, RIH TAG FILL @ 9,156'.
				C/O 50' SAND TAG PLUG #10 @ 9,206', DRL HAL 8K CBP IN 6 MIN, 250 PSI INC, FCP 500 PSI, RIH TAG FILL @ 9,510'.
				C/O 33' SAND TO PBTD @ 9,543', CIRC CLEAN, RD PWR SWVL, POOH LD 20 JTS TBG, LAND TBG W/ 281 JTS 2 3/8" L-80 EOT @ 8,928.72', RD FLOOR & TBG EQUIP, NDBOP, NUWH, DROP BALL POBS @ 1,600 PSI, PRESS TEST FLOWLINE BETWEEN HAL 9,000 & WELLHEAD TO 3,000 PSI, LET BIT FALL 20 MIN TURN OVER TO FBC, DRAIN UP EQUIP, RDMO, MOVE RIG & EQUIP TO MORGAN STATE 921-36A PAD, SDFN.
				KB-24' HANGER83'

2/27/2013 4:48:54PM

Vell: MORGAN STATE 921-36H4BS GREEN			Spud Date: 8/9/2	2012
Project: UTAH-UINTAH	RGAN STATE 921	-36I PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3	
Event: COMPLETION	Start Da	te: 12/5/2012		End Date: 2/7/2013
Active Datum: RKB @5,059.00usft (above Mea.evel)	n Sea	UWI: NE/SE/0/9	S/21/E/36/0/0/26/PM/S/2108	/E/0/745/0/0
Date Time Durati Start-End (hr)	on Phase	Code Sub Code	P/U MD From (usft)	Operation
				281 JTS 2 3/8" L-80-8,901.69'
				POBS W/ XN SN-2.20'
				EOT @ 8,928.72'
				315 JTS DEL
				281 JTS USED
				34 JTS RET
				TWTR=13,808 BBLS
				TWR=2,820 BBLS
40.00				TWLTR=10,988 BBLS
16:00 - 16:00 0.00	DRLOUT	50		WELL TURNED TO SALES @ 1420 HR ON 2/7/2013. 3000 MCFD, 1560 BWPD, FCP 2000#, FTP 1800#.

2/27/2013



+N/-S 0.00 +E/-W 0.00 Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: MORGAN STATE 921-361 Well: MORGAN STATE 921-36H4BS

Wellbore: OH Design: OH

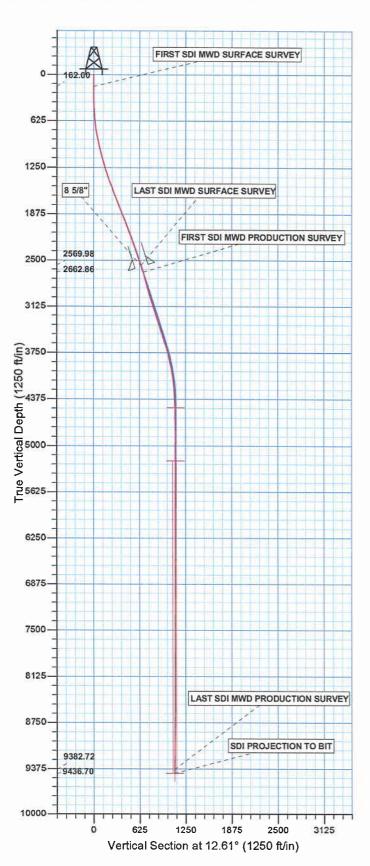


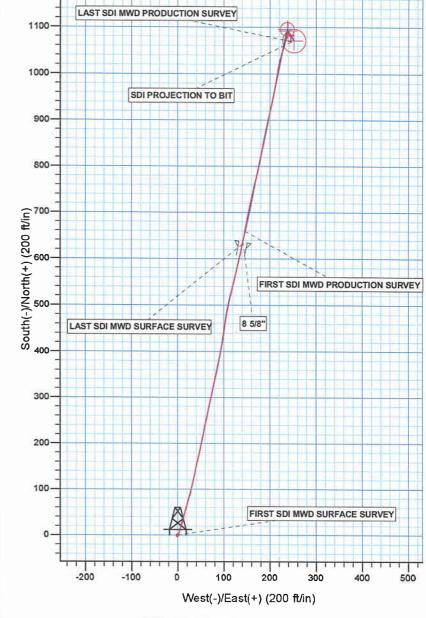




Azimuths to True North Magnetic North: 11.01°

> Magnetic Field Strength: 52278.3snT Dip Angle: 65.85° Date: 12/02/2011 Model: IGRF2010





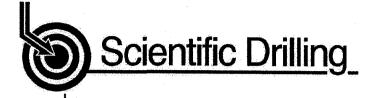
PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12th (114 W to 108 W)
Location: SECTION 36 T9S R21E

System Datum: Mean Sea Level

Design: OH (MORGAN STATE 921-36H4BS/OH)

Created By: Gabe Kendall Date: 9:49, October 18 2012



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36I MORGAN STATE 921-36H4BS

OH

Design: OH

Standard Survey Report

18 October, 2012







Company: Project: Site:

Well:

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36I MORGAN STATE 921-36H4BS

Wellbore: OH Design: OH **Local Co-ordinate Reference:**

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36H4BS

GL 5035 & KB 24 @ 5059.00ft (HP 318) GL 5035 & KB 24 @ 5059.00ft (HP 318)

Minimum Curvature EDM 5000.1 Single User Db

Project

Site

From:

UTAH - UTM (feet), NAD27, Zone 12N

Map System:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

System Datum:

Mean Sea Level

MORGAN STATE 921-36I, SECTION 36 T9S R21E

Site Position:

Lat/Long

Northing:

14,526,390.12 usft 2,062,630.69 usft

Latitude:

39.991146 Longitude: -109.492632

Position Uncertainty:

0.00 ft

Easting: Slot Radius:

13.200 in

Grid Convergence:

0.97°

Well MORGAN STATE 921-36H4BS, 2108 FSL 745 FEL

Well Position

+N/-S +E/-W 0.00 ft 0.00 ft Northing: Easting:

14,526,390.12 usft 2,062,630.69 usft

Latitude:

39.991146

Position Uncertainty

0.00 ft

ft

Longitude:

-109.492632

Wellhead Elevation:

Ground Level:

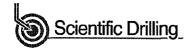
5,035.00 ft

	IGRF2010	12/02/11	11.01	65.85	52,278
Magnetics		Sample Date	Declination D	îp Angle Fi (°)	eld Strength (nT)
Wellbore	OH	ruestatoro and 1966 r. 1919 estatoro		tilde og er	
to contract to the contract to	OH.	entransministration of the contract of the con	Application and arrived the experience of a comment of grant and a comment of grant of the	the same and the transfer are the same and t	rom promonentini in in markatini propri in tarje. Ighti jayayayayayayay

Design	OH	egypterion o o o o o o o o o o o o o o o o o o	o en la casa de la companya de la c La casa de la companya de la company	general de l'estate de la company de la Company de la company de l	era en
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section	u	Depth From (TVD) (ft)	+N/-S (ft) 00 0,00	+E/-W (ft) 0.00	Direction (*).

Si	urvey Program From (ft)	Date 10/18/12 To (ft) Survey (Wellbore)	Tool Name	Description
	20.00	2,675.00 Survey #1 SDI MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1
	2,772.00	9,606.00 Survey #2 SDI MWD PRODUCTION (OH)	SDIMWD	SDI MWD - Standard ver 1.0.1

vey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
162.00	0.44	32.64	162.00	0.46	0.29	0.51	0.31	0.31	0.00
FIRST SDI M	WD SURFACE S	SURVEY							
192.00	0.53	40.46	192.00	0.66	0.45	0.74	0.37	0.30	26.07
221.00	0.62	47.84	221.00	0.87	0.65	0.99	0.40	0.31	25.45
247.00	0.62	43.54	246.99	1.07	0.85	1.23	0.18	0.00	-16.54
275.00	0.79	38.26	274.99	1.33	1.07	1.53	0.65	0.61	-18.86
303.00	1.23	35.19	302.99	1.72	1.37	1.98	1.58	1.57	-10.96
332.00	1.61	29.67	331.98	2.33	1.75	2.66	1.39	1.31	-19.03





Company: Project: Site:

Well:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36I MORGAN STATE 921-36H4BS

Wellbore: Design: ОН

Local Co-ordinate Reference;
2N TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method: Database:

Well MORGAN STATE 921-36H4BS GL 5035 & KB 24 @ 5059.00ft (HP 318) GL 5035 & KB 24 @ 5059.00ft (HP 318)

True

Minimum Curvature EDM 5000.1 Single User Db

y ,									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
362.00	1.93	25.34	361.96	3.16	2.17	3.55	1.16	1,07	-14.43
			•	0.10	2.17	0.00	1.10	1.07	-14.40
452.00	2.64	18.31	451.89	6.49	3.47	7.09	0.85	0.79	-7.81
542.00	3.96	17.43	541.74	11.43	5.06	12.25	1.47	1.47	-0.98
632.00	5.98	16.03	631.40	18.90	7.28	20.03	2.25	2.24	-1.56
722,00	8.09	15.68	720.72	29.50	10.29	31.04	2.34	2.34	-0.39
812.00	10.64	16.56	809.51	43.57	14.37	45.65	2.84	2.83	0.98
902.00	12.22	15.76	897.72	60.70	19.32	63.45	1.76	1.76	-0.89
992.00	13.63	15.50	985.44	80.08	24.74	83.55	1.57	1.57	-0.29
1,082.00	14.77	13.13	1,072.69	101.48	30.18	105,62	1.42	1.27	-2.63
1,172.00	16.36	12.60	1,159.39	125.02	35.56	129.77	1.77	1,77	-0.59
1,262.00	17.76	12.19	1,245.42	150.81	41.22	156.17	1.56	1.56	-0.46
1,352.00	19.43	12.78	1,330,72	178.82	47.43	184.87	1.87	, 1.86	0.66
1,442.00	19.87	11.68	1,415.48	208.40	53.84	215.13	0.64	0.49	-1.22
1,532.00	20.10	11.37	1,500.06	238.54	59.98	245.88	0.28	0.49	-0.34
1,622.00	20.49	12.51	1,584.47	269.08	66.44	277.10	0.62	0.43	1.27
1,712.00	21,10	10.84	1,668.61	300.37	72.90	309.04	0.95	0.43	-1.86
1,802.00	21.18	13.00	4.750.56	220.40	70.04	044.40			
1,892.00	21.16		1,752.56	332.12	79.61	341.49	0.87	0.09	2.40
1,982.00		12.42	1,836.25	364.41	86.89	374.59	0.92	0.89	-0.64
*	23.13	10.84	1,919.36	398.23	93.83	409.10	1.44	1,28	-1.76
2,072.00	20.84	8.21	2,002.81	431.44	99.45	442.74	2.77	-2.54	-2.92
2,162.00	20.84	7.68	2,086.93	463.15	103.87	474.65	0.21	0.00	-0.59
2,252.00	20.49	11.63	2,171.14	494.44	109.19	506.35	1.60	-0.39	4.39
2,342.00	19.84	14.47	2,255.62	524.66	116.18	537.37	1.31	-0.72	3.16
2,432.00	20.05	13.65	2,340.23	554.44	123.64	568,06	0.39	0.23	-0.91
2,522.00	19.35	13.04	2,424.96	583.96	130.64	598.40	0.81	-0.78	-0.68
2,612.00	18.38	12.60	2,510.12	612.33	137,10	627.49	1,09	-1.08	-0.49
2,675.00	17.94	11.81	2,569.98	631.53	141.25	647.13	0.80	-0.70	-1.25
LAST SDI M	IWD SURFACE S	URVEY							
2,772.00	15.59	9.34	2,662.86	659.01	146.43	675.08	2.53	-2.42	-2.55
FIRST SDI N	IWD PRODUCTION	ON SURVEY							
2,866.00	15.33	11.14	2,753.46	683.67	150.88	700.12	0.58	-0.28	1.91
2,961.00	15.65	11.25	2,845.00	708.56	155.80	725.48	0.34	0,34	0.12
3,055.00	15.83	12.13	2,935.48	733.53	160.97	750.98	0.32	0.19	0.94
3,149.00	18.12	14.80	3,025.38	760,20	167.40	778.41	2.57	2.44	2.84
3,243.00	18.29	12.75	3,114.68	788.72	174.39	807.76	0.70	0.18	-2.18
3,338,00	17.58	10.51	3,205.06	817.36	180.30	837.01	1.04	-0.75	-2.36
3,432.00	16.80	9.76	3,294.86	844.71	185.19	864.76	0.86	-0.83	-0.80
3,527.00	18.29	11.95	3,385.44	872.83	190.60	893.38	1.72	1.57	2.31
3,621.00	18.91	12.92	3,474.53	902.10	197.06	923.36	0.74	0.66	1.03
3,716.00	18.55	11.87	3,564.50	931.90	203.61	953,87	0.74	-0.38	-1.11
3,810.00	17.50	11.08	3,653.88	960.40	209.40	982.95	1.15	-0.36 -1.12	-1.11 -0.84
3,905.00	15.83	9.93	3,744,89	987.18	214.38	1,010.17	1.79	-1.12 -1.76	-0.64 -1.21
3,999.00	12.49	10.02	3,836.02	1,009.83	214.36	1,010.17			
5,555.00	12.43	10.02	0,000.02	1,000.00	210.00	1,000.14	3.55	-3.55	0.10





Company: Project:

Site:

Well:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

MORGAN STATE 921-361 MORGAN STATE 921-36H4BS

Wellbore: ОН Design: ОН Local Co-ordinate Reference: TVD Reference:

MD Reference: **North Reference:**

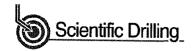
Survey Calculation Method:

Database:

Well MORGAN STATE 921-36H4BS GL 5035 & KB 24 @ 5059.00ft (HP 318) GL 5035 & KB 24 @ 5059.00ft (HP 318)

Minimum Curvature EDM 5000.1 Single User Db

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(*)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
4,093.00	12.40	13.80	3,927.81	1,029.64	222.54	1,053.38	0.87	-0.10	4.02
4,187.00	10.02	17.93	4,020.02	1,047.22	227.47	1,071.62	2.67	-2.53	4.39
4,282.00	5.97	15.24	4,114.07	1,059.86	231.31	1,084.79	4.28	- 4.26	-2.83
4,376.00	4.48	17.23	4,207.68	1,068.08	233.68	1,093.33	1.60	-1.59	2.12
4,470.00	3.55	12.99	4,301.45	1,074.42	235,43	1,099.90	1.04	-0.99	-4.51
4,565.00	2.90	1.32	4,396.30	1,079.69	236.14	1,105.20	0.97	-0.68	-12.28
4,659.00	1.67	0.44	4,490.22	1,083.44	236.21	1,108,87	1.31	-1.31	-0.94
4,753.00	1.32	17.14	4,584.19	1,085.84	236.54	1,111.29	0.59	-0.37	17.77
4,847.00	0.97	34.19	4,678.17	1,087.53	237.30	1,113.11	0.52	-0.37	18.14
4,942.00	0.88	43.24	4,773.16	1,088.73	238.25	1,114.48	0.18	-0.09	9.53
5,036.00	0.62	82,36	4,867.15	1,089.32	239.25	1,115.28	0.59	-0.28	41.62
5,131.00	0.62	117.86	4,962.15	1,089.15	240.22	1,115.32	0.40	0.00	37.37
5,225.00	0.79	132.01	5,056.14	1,088.48	241.15	1,114.87	0.26	0.18	15.05
5,319.00	0.83	138.77	5,150.13	1,087.54	242.08	1,114.15	0.11	0.04	7.19
5,414.00	0.97	140.04	5,245.12	1,086.40	243.05	1,113.26	0.15	0.15	1.34
5,508.00	0.18	247.94	5,339.11	1,085.74	243.42	1,112.69	1.11	-0.84	114.79
5,602.00	0.18	187.56	5,433.11	1,085.53	243.27	1,112.46	0.19	0.00	-64.23
5,697.00	0.26	175.17	5,528.11	1,085.17	243.26	1,112.10	0.10	0.08	-13.04
5,791.00	0.53	163.74	5,622.11	1,084.54	243.40	1,111.52	0.30	0.29	-12.16
5,886.00	0.51	220.43	5,717.11	1,083.80	243.25	1,110.76	0.52	-0.02	59.67
5,980.00	1.25	290.05	5,811.10	1,083.83	242.02	1,110.52	1.25	0.79	74.06
6,075.00	1.10	279.81	5,906.08	1,084.34	240.15	1,110.61	0.27	-0.16	-10.78
6,169.00	88.0	263.06	6,000.06	1,084.41	238.54	1,110.33	0.38	-0.23	-17.82
6,263.00	1.14	236.60	6,094.05	1,083.81	237.04	1,109.41	0.56	0.28	-28.15
6,358.00	0.97	274.13	6,189.03	1,083.34	235.45	1,108.62	0.73	-0.18	39.51
6,453.00	0.70	335.92	6,284.03	1,083.93	234.41	1,108.96	0.93	-0.28	65.04
6,547.00		50.01	6,378.02	1,084.87	234.68	1,109.94	0.96	0.10	78.82
6,641.00	0.79	67.50	6,472.01	1,085.54	235.77	1,110.83	0.26	0.00	18.61
6,736.00	0.88	94.40	6,567.00	1,085.73	237.10	1,111.31	0.42	0.09	28.32
6,830.00	1.06	104.50	6,660.99	1,085.46	238.67	1,111.38	0.26	0.19	10.74
6,925.00		111.53	6,755.97	1,084.94	240.26	1,111.23	0.16	-0.09	7.40
7,019.00		265.87	6,849.97	1,084.65	241.00	1,111.10	1.03	-1.03	0.00
7,114.00		135.53	6,944.97	1,084.55	241.11	1,111.02	0.19	0.19	0.00
7,208.00	0.18	117.42	7,038.97	1,084.37	241.34	1,110.90	0.06	0.00	-19.27
7,302.00	0.35	125.77	7,132.97	1,084.14	241.71	1,110.75	0.18	0.18	8.88
7,397.00		140.80	7,227.96	1,083.40	242.40	1,110.19	0.58	0.56	15.82
7,491.00		130.26	7,321.95	1,082.24	243.57	1,109.31	0.34	0.28	-11.21
7,586.00		121.03	7,416.93	1,081.10	245.17	1,108.55	0.22	0.09	-9.72
7,680.00	0.35	83.15	7,510.92	1,080.62	246.32	1,108.32	1.04	-0.94	-40.30
7,775.00	0,35	63.46	7,605.92	1,080.78	246.87	1,108.60	0.13	0.00	-20.73
7,869.00	0.62	95.19	7,699.91	1,080.86	247.63	1,108.85	0.39	0.29	33.76
7,964.00	0.35	9.14	7,794.91	1,081.10	248.19	1,109.21	0.73	-0.28	-90.58
8,058.00	0.79	100.72	7,888.91	1,081.26	248.87	1,109.51	0.93	0.47	97.43
8,152.00	0.44	22.24	7,982.90	1,081.48	249.64	1,109.89	0.88	-0.37	-83.49





Company: Project US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36I

Site: MORGAN STATE 921-36|
Well: MORGAN STATE 921-36H4BS

Wellbore: OH Design: OH Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36H4BS GL 5035 & KB 24 @ 5059.00ft (HP 318)

GL 5035 & KB 24 @ 5059.00ft (HP 318)

True

Minimum Curvature

EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,247.00	0.53	34.98	8,077.90	1,082.18	250.03	1,110.66	0.15	0.09	13.4
8,341.00	0.53	81.39	8,171.90	1,082.60	250.71	1,111.22	0.44	0.00	49.37
8,436.00	0.35	20.30	8,266.89	1,082.94	251.25	1,111.66	0.50	-0.19	-64.31
8,530.00	0.97	296.02	8,360.89	1,083.55	250.63	1,112.13	1.06	0.66	-89.66
8,624.00	0.88	271.23	8,454.88	1,083.92	249.19	1,112.17	0.43	-0.10	-26.37
8,719.00	0.67	230.61	8,549.87	1,083.58	248.04	1,111.59	0.60	-0.22	-42.76
8,813.00	0.62	223.42	8,643.86	1,082,86	247.26	1,110.72	0.10	-0.05	-7.65
8,908.00	0.70	208.74	8,738.86	1,081.98	246.63	1,109.72	0.20	0.08	-15.45
9,002.00	0.94	208.48	8,832.85	1,080.80	245.99	1,108.43	0.26	0.26	-0.28
9,096.00	1.14	188.79	8,926.83	1,079.20	245.48	1,106.76	0,43	0,21	-20.95
9,191.00	1.20	183.20	9,021.81	1,077.27	245.28	1,104.83	0.14	0.06	-5.88
9,285.00	1.23	173.50	9,115.79	1,075,29	245.33	1,102.91	0.22	0,03	-10.32
9,380.00	1.41	174.11	9,210.76	1,073.11	245.57	1,100.84	0.19	0.19	-10.32
9,474.00	1.41	161.63	9,304.74	1,070,86	246.05	1,098.75	0.33	0.00	
9,552.00	1.23	177.63	9,382.72	1,069,11	246.39	1,097.12	0.52	-0.23	-13.28 20.51
LAST SDI MI	ND PRODUCTIO	N SURVEY		National Co		- 1,001.1. <u>2</u>		-0.23	20.31
9,606.00	1,23	177.63	9,436.70	1,067.96	246.44	1,096.00	0.00	0.00	0.00

Casing Points	Annual Company of the Company
- IN MENUTURE FOR INCOME INCO	- Andrews in the same
The state of the s	1965 A 144 M
	(950) (25-75-46)
	(8890)20110116
Measured Vertical	·····································
Measured Vertical	11 Cal T 1 Cal 15
Casing Hole	Committee of the second
	\$21.00
Depth Depth	
Deput Deput Diameter Diameter	ASS 84 - 7 - 7 - 7 - 7 - 7 - 7
	ARE DESIGNATE
(ft) (ft) Name (in) (in)	SCHOOL STATE
(in) (tt) Name (in) (in)	examination of the
(ii) (iii) Name (iii) (iii)	SHEET WAY
	2012/01/2015
2,691.00 2,585.22 8 5/8"	SEC. 10. 10. 12. 12.
2,585.22 8 5/8 8.625 11.000	- 1
2,501.35 2,503.22 8.58 8.625 11.000	- 1
	1

Design Annotations	istories de la companya de la compan		en e	
Measured Depth (ft)	Vertical Depth (和)	Local Coor +N/-S (ft)	dinates +E/-W (ft)	Comment
162.00	162.00	0.46	0.29	FIRST SDI MWD SURFACE SURVEY
2,675.00	2,569.98	631.53	141.25	LAST SDI MWD SURFACE SURVEY
2,772.00	2,662.86	659.01	146.43	FIRST SDI MWD PRODUCTION SURVEY
9,552.00	9,382.72	1,069.11	246.39	LAST SDI MWD PRODUCTION SURVEY
9,606.00	9,436.70	1,067.96	246.44	SDI PROJECTION TO BIT

Checked By:	Approved D.		
onconca by.	Approved By:	Date:	